TABLES

FOR COMPUTING

THE APPARENT PLACES OF THE FIXT STARS,

AND REDUCING

OBSERVATIONS OF THE PLANETS.

BY

THE REVEREND NEVIL MASKELYNE, B. D.
FELLOW OF TRINITY COLLEGE, CAMBRIDGE, AND OF
THE ROYAL SOCIETY,
AND
ASTRONOMER ROYAL.

PUBLISHED

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M.DCC.LXXIV.

On account of the inclination of the moon's orbit to the ecliptic, and the revolution of the nodes in antecedentia, which is performed in eighteen years and ſeven months, the part of the preceſſion of the equinoxes, owing to her action, is not uniform; but ſubject to an equation, whoſe maximum is 18″: and the obliquity of the ecliptic is alſo ſubject to a periodical equation of 9″,55; being greater by 19″,1, when the moon's aſcending node is in *Aries* than when it is in *Libra*. Both theſe effects are repreſented together, by ſuppoſing the pole of the earth to deſcribe the periphery of an ellipſis, in a retrograde manner, during each period of the moon's nodes, the greater axis lying in the ſolſtitial colure, being 19″,1, and the leſſer axis, lying in the equinoctial colure, 14″,2; being to the greater as the coſine of double the obliquity of the ecliptic to the coſine of the obliquity itſelf. This motion of the pole of the earth is called *The nutation of the earth's axis*, and was diſcovered by Dr. *Bradley*, by a ſeries of obſervations of ſeveral ſtars made in the courſe of twenty years, from 1727 to 1747, being a continuation of thoſe by which he had diſcovered the aberration of light. But the exact law of the motion of the earth's axis has been ſettled by the learned mathematicians Mr. *d'Alembert*, Mr. *Euler*, and Mr. *Simpſon*, from the principles of gravity. The equation hence ariſing in the place of a fixed ſtar, whether in longitude, right aſcenſion, or declination (for the latitudes are not affected by it) has been ſometimes called *nutation*, and ſometimes *deviation*: but, in the following Tables, the *deviation* in right aſcenſion, or longitude, is uſed to ſignify only the alteration in the point of the equator or ecliptic, to which the ſtar is referred by the circle of declination, or circle of latitude, paſſing through it, and not the whole alteration of the place of the ſtar's right aſcenſion, or longitude, as meaſured from the equinox itſelf; the alteration in the ſtar's right aſcenſion, or longitude, ariſing from the change of the equinoxes above-mentioned, which affects all the ſtars equally, being conſidered as a ſeparate equation, and called by the name *Equation of the equinoxes*. The equation of the ſtar's place, with reſpect to its diſtance from the north pole of the equator, is alſo called *Deviation in north-polar diſtance*.

The united actions of all the planets upon the earth, combined with the inclinations of their orbits to the ecliptic, cauſe a continual change in the plane of its orbit, and conſequently a continual variation of longitude, latitude, and right aſcenſion of the ſtars, and of the obliquity of the ecliptic. The action of any one planet tends to produce a retrograde motion of the nodes of the earth's orbit with that of the planet, without ſenſibly affecting the inclination of the orbits to one another; and is a ſimilar effect to the alteration of the plane of the moon's orbit and the retrograde motion of her nodes, and is repreſented by ſuppoſing the north pole of the ecliptic to begin to move in a retrograde manner in a parallel circle about the pole of the planet's orbit, with an angular motion equal to the motion of the nodes, owing to the planet's action. Each planet produces a like tendency to motion in the pole of the ecliptic, directly towards the aſcending node of the planet; and conſequently, as the aſcending nodes of all the planets are within 3 ſigns of Cancer, will cauſe it to approach nearer to the north pole of the equator, which will occaſion a ſecular diminution of the obliquity of the ecliptic, agreeable to the obſervations of Aſtronomers antient and modern. This tranſlation of the plane of the ecliptic was firſt explained and reduced to calculation by the celebrated Mr. *Euler*.

The apparent motions of the fixed ſtars, which have been here explained, having been ſettled conformably both to obſervation and theory, might be ſuppoſed ſufficient to determine their places to any future or paſt period from their places well ſettled by obſervation at the preſent time; and ſo they probably would, for a moderate ſpace of time, were it not for peculiar but ſmall motions, which many, if not all of them, have among themſelves, which have been called their *proper motions*; the cauſe and laws of which are hid for the preſent in almoſt equal obſcurity. But in theſe things intereſting diſcoveries may be reſerved for the induſtry of future ages. In the mean time Aſtronomers are obliged to find the *proper motions* from obſervations made at diſtant periods, and to ſuppoſe them uniform in the intermediate time and for ſome time to come.

Having thus given a brief account of the apparent motions to which the fixt ſtars are ſubject, I ſhall only juſt take notice of the ſmall inequalities of the ſun's apparent motion depending on the attraction of the moon, Jupiter, and Venus upon the earth. As Sir *Iſaac Newton*

Newton obſerves in his *Principia*, it is not the earth, but the common centre of gravity of the earth and moon that deſcribes the annual orbit round the ſun, the earth and moon deſcribing at the ſame time orbits perfectly ſimilar to each other, and in the ſame plane round their common centre of gravity, every month. The ſun, therefore, viewed from the earth, cannot appear to deſcribe an elliptical orbit accurately; but will appear to deviate from it, by an equation equal to the angle of the earth's elongation from the common centre of gravity above-mentioned ſeen from the ſun. Moreover, as Jupiter and Venus produce a ſenſible variation in the plane of the earth's orbit, as before-mentioned, ſo do they alſo affect the motion of the earth in longitude, and thereby give occaſion to equations of the ſun's apparent motion, which are not ſo ſmall as to elude the nicety of modern Aſtronomical obſervations.

I ſhall now proceed to give ſome account of the contents of the following Tables. The two firſt Tables ſerve for the readily finding the mean longitude of the moon's aſcending node at any time within 2 or 3 minutes, or much more exactly than is required for the uſe for which it is wanted, that of taking out the equations relating to the nutation of the earth's axis, from Tables V. VI. VII. XII. XV. XVIII. XXVII. XXXII. and XLII. But, for the purpoſe of modern obſervations, the longitude of the moon's node may be taken out of an ephemeris, that being now made a conſtant article in the Nautical Almanac and many other ephemerides, on account of its continual uſe; and then the two firſt Tables will not be wanted.

Tables III. and IV. give the variation of a ſtar's right aſcenſion, owing to the mean or uniform preceſſion of the equinoxes during any given interval of time: only it is to be obſerved, that Table IV. is conſtructed ſo as to include the effect of the unequal preceſſion owing to the ſun, in the courſe of every half year. It ſhould alſo be noted, that if the interval of time for which the preceſſion be required is conſiderable, it will be neceſſary to employ the right aſcenſion and declination of the ſtar anſwering to the middle of the interval in the uſe of Table III.

The uniform motion of the equinoctial points being diſturbed by the nutation of the earth's axis, the true equinox will differ from the equinox computed according to the mean motion, and the right aſcenſions of all the ſtars and other heavenly bodies will be affected by the quantity of that difference; the correction hence ariſing is contained in Table V. which reduces their right aſcenſions reckoned from the mean equinox, to their right aſcenſions reckoned from the true equinox. Table V. however does not exhibit the whole effect of the nutation of the earth's axis on the right aſcenſions of the ſtars, except of thoſe in the equator; but a farther correction is neceſſary, which is different for different declinations, and is called the deviation in right aſcenſion, and is found by Table VI. Or the maximum of deviation may be readily found by Table VII. and then it will be only neceſſary to find the argument of deviation by Table VI. in that caſe omitting the logarithm, which is that of the maximum to a ſtar of 45° declination. The fourth and laſt correction of the right aſcenſion of a ſtar (ſuppoſed ſettled to ſome certain epoch) is that of aberration, and may be found from Tables VIII. and IX. Theſe four corrections being applied according to their ſigns, to the mean right aſcenſion of the ſtar ſettled to any given epoch, will give the apparent right aſcenſion of the ſtar reckoned from the true equinox.

After the foregoing Tables were conſtructed, I found it more convenient for my own uſe in reducing obſervations made with the tranſit inſtrument, to expreſs the right aſcenſions of the ſtars in ſidereal time, rather than in parts of the equator in the uſual manner, as ſhewn by the preceding Tables: I therefore divided the numbers in Tables III. V. VII. and IX. by 15, whereby they became converted into Tables XIII. XIV. XV. and XVI. reſpectively, expreſſed in ſeconds of ſidereal time; from whence, with the help of Tables IV. VI. and VIII. as before, the four corrections of preceſſion, equation of the equinoxes, deviation and aberration, will be found in ſidereal time, and applied to the mean right aſcenſion of the ſtar given to any certain epoch in ſidereal time, will give the apparent right aſcenſion in ſidereal time.

Table Xth contains the right aſcenſions and diſtances from the north pole of 34 principal fixt ſtars, ſettled with great accuracy to the beginning of the year 1770, the north polar

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Explanation and Uſe of the TABLES.

THE labour of aſtronomical calculations is ſo much increaſed, in this age, by the diſcovery of many inequalities in the motions of the heavenly bodies unknown to former times, as to render it neceſſary to call in every aſſiſtance that can be derived from Tables. Even in the fixed ſtars many apparent motions are found, beſides that owing to the preceſſion of the equinoxes; and, as the ſun and planets are continually compared with them in aſtronomical obſervations, Tables for computing their places in the heavens are of conſtant uſe, in order to define the obſerved places of the planets. The following Tables, deſigned for theſe purpoſes, were compoſed for my own uſe; and will, I flatter myſelf, be found convenient to others for making calculations upon the obſervations that have been made at the Royal Obſervatory; on this account, I thought it proper to annex them to my Obſervations. They are founded upon principles at this time univerſally admitted by Aſtronomers; the motion of the earth, the ſucceſſive propagation of light, and the mutual gravitation of the heavenly bodies. But the uſe of them may probably be illuſtrated by the following brief account of the apparent motions of the fixed ſtars ariſing out of thoſe principles, and which the Tables are contrived to exhibit.

The motion of light, combined with the motion of the earth in its orbit round the ſun, produces the aberration of light, whereby all ſtars, which are neither in the plane or pole of the ecliptic, appear to deſcribe ellipſes, the greater axis of which, being 40″, is parallel to the plane of the ecliptic; and the leſſer axis is to the greater as the ſine of the ſtar's latitude to the radius, the ſtar revolving in the periphery of the ellipſis according to the order of the ſigns, and being at the eaſtern extremity of the longer axis when in oppoſition to the ſun. This was diſcovered by Dr. *Bradley*, from his obſervations of the fixed ſtars made in the years 1727 and 1728, with a zenith ſector (conſtructed by Mr. *Graham*) and the cauſe and law of its variation at the ſame time explained by him.

The actions of the ſun and moon upon the exceſs of the earth, which is an oblate ſpheroid, above the inſcribed ſphere, give occaſion to the preceſſion of the equinoctial points, whereby the points of the interſection of the ecliptic and the equator are continually carried backward upon the ecliptic at the rate of 1° in 71½ years, the inclination of the equator to the ecliptic, or obliquity of the ecliptic, continuing the ſame, excluſive of ſome ſmall alterations therein, which will be preſently mentioned. The apparent motion of the ſphere of the fixed ſtars hence ariſing was firſt diſcovered by *Hipparchus*, by comparing his obſervations with thoſe of the Aſtronomers who had cultivated Aſtronomy in *Alexandria* a century and half before him. The inequality of the action of the ſun between the equinoxes and ſolſtices cauſes an equation in the preceſſion of the equinoxes, the maximum of which is 1″,16, ſimilar to the ſemiannual equation of the moon's nodes, and an equation of half a ſecond in the obliquity of the ecliptic, which is 1″ greater at the equinoxes than that at the ſolſtices; in the ſame manner as the inclination of the lunar orbit to the plane of the ecliptic is greater by about 18′, when the nodes are in ſyſigie than when they are quadrature with the ſun. This nutation of the earth's axis Sir *Iſaac Newton* mentions in the *Principia*, but without attempting to aſſign the quantity of it. Theſe two effects, the inequality of the ſolar preceſſion and the variation of obliquity of the ecliptic, may be repreſented conjointly by one hypotheſis, namely, by ſuppoſing the pole of the earth to deſcribe a circle of 1″ in diameter every half year, according to the order of the ſigns, with an angular motion about the centre equal to double the ſun's motion in longitude, and to be at its greateſt diſtance from the pole of the ecliptic at the time of the equinoxes. Hence the apparent diſtance of every ſtar from the pole of the equator will be ſubject to a variation of one ſecond twice a year; the interval between the neareſt acceſs and greateſt receſs being three months. Although this equation be ſo ſmall, yet, on account of its quick alteration, it ſeems to deſerve ſome notice in obſervations of particular nicety, and therefore I have included it in theſe Tables.

On account of the inclination of the moon's orbit to the ecliptic, and the revolution of the nodes in antecedentia, which is performed in eighteen years and ſeven months, the part of the preceſſion of the equinoxes, owing to her action, is not uniform; but ſubject to an equation, whoſe maximum is 18″: and the obliquity of the ecliptic is alſo ſubject to a periodical equation of 9″,55; being greater by 19″,1, when the moon's aſcending node is in *Aries* than when it is in *Libra*. Both theſe effects are repreſented together, by ſuppoſing the pole of the earth to deſcribe the periphery of an ellipſis, in a retrograde manner, during each period of the moon's nodes, the greater axis lying in the ſolſtitial colure, being 19″,1, and the leſſer axis, lying in the equinoctial colure, 14″,2; being to the greater as the coſine of double the obliquity of the ecliptic to the coſine of the obliquity itſelf. This motion of the pole of the earth is called *The nutation of the earth's axis*, and was diſcovered by Dr. *Bradley*, by a ſeries of obſervations of ſeveral ſtars made in the courſe of twenty years, from 1727 to 1747, being a continuation of thoſe by which he had diſcovered the aberration of light. But the exact law of the motion of the earth's axis has been ſettled by the learned mathematicians Mr. *d'Alembert*, Mr. *Euler*, and Mr. *Simpſon*, from the principles of gravity. The equation hence ariſing in the place of a fixed ſtar, whether in longitude, right aſcenſion, or declination (for the latitudes are not affected by it) has been ſometimes called *nutation*, and ſometimes *deviation:* but, in the following Tables, the *deviation* in right aſcenſion, or longitude, is uſed to ſignify only the alteration in the point of the equator or ecliptic, to which the ſtar is referred by the circle of declination, or circle of latitude, paſſing through it, and not the whole alteration of the place of the ſtar's right aſcenſion, or longitude, as meaſured from the equinox itſelf; the alteration in the ſtar's right aſcenſion, or longitude, ariſing from the change of the equinoxes above-mentioned, which affects all the ſtars equally, being conſidered as a ſeparate equation, and called by the name *Equation of the equinoxes*. The equation of the ſtar's place, with reſpect to its diſtance from the north pole of the equator, is alſo called *Deviation in north-polar diſtance*.

The united actions of all the planets upon the earth, combined with the inclinations of their orbits to the ecliptic, cauſe a continual change in the plane of its orbit, and conſequently a continual variation of longitude, latitude, and right aſcenſion of the ſtars, and of the obliquity of the ecliptic. The action of any one planet tends to produce a retrograde motion of the nodes of the earth's orbit with that of the planet, without ſenſibly affecting the inclination of the orbits to one another; and is a ſimilar effect to the alteration of the plane of the moon's orbit and the retrograde motion of her nodes, and is repreſented by ſuppoſing the north pole of the ecliptic to begin to move in a retrograde manner in a parallel circle about the pole of the planet's orbit, with an angular motion equal to the motion of the nodes, owing to the planet's action. Each planet produces a like tendency to motion in the pole of the ecliptic, directly towards the aſcending node of the planet; and conſequently, as the aſcending nodes of all the planets are within 3 ſigns of Cancer, will cauſe it to approach nearer to the north pole of the equator, which will occaſion a ſecular diminution of the obliquity of the ecliptic, agreeable to the obſervations of Aſtronomers antient and modern. This tranſlation of the plane of the ecliptic was firſt explained and reduced to calculation by the celebrated Mr. *Euler*.

The apparent motions of the fixed ſtars, which have been here explained, having been ſettled conformably both to obſervation and theory, might be ſuppoſed ſufficient to determine their places to any future or paſt period from their places well ſettled by obſervation at the preſent time; and ſo they probably would, for a moderate ſpace of time, were it not for peculiar but ſmall motions, which many, if not all of them, have among themſelves, which have been called their *proper motions*; the cauſe and laws of which are hid for the preſent in almoſt equal obſcurity. But in theſe things intereſting diſcoveries may be reſerved for the induſtry of future ages. In the mean time Aſtronomers are obliged to find the *proper motions* from obſervations made at diſtant periods, and to ſuppoſe them uniform in the intermediate time and for ſome time to come.

Having thus given a brief account of the apparent motions to which the fixt ſtars are ſubject, I ſhall only juſt take notice of the ſmall inequalities of the ſun's apparent motion depending on the attraction of the moon, Jupiter, and Venus upon the earth. As Sir *Iſaac Newton*

Newton obſerves in his *Principia*, it is not the earth, but the common centre of gravity of the earth and moon that deſcribes the annual orbit round the ſun, the earth and moon deſcribing at the ſame time orbits perfectly ſimilar to each other, and in the ſame plane round their common centre of gravity, every month. The ſun, therefore, viewed from the earth, cannot appear to deſcribe an elliptical orbit accurately; but will appear to deviate from it, by an equation equal to the angle of the earth's elongation from the common centre of gravity above-mentioned ſeen from the ſun. Moreover, as Jupiter and Venus produce a ſenſible variation in the plane of the earth's orbit, as before-mentioned, ſo do they alſo affect the motion of the earth in longitude, and thereby give occaſion to equations of the ſun's apparent motion, which are not ſo ſmall as to elude the nicety of modern Aſtronomical obſervations.

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The uniform motion of the equinoctial points being diſturbed by the nutation of the earth's axis, the true equinox will differ from the equinox computed according to the mean motion, and the right aſcenſions of all the ſtars and other heavenly bodies will be affected by the quantity of that difference; the correction hence ariſing is contained in Table V. which reduces their right aſcenſions reckoned from the mean equinox, to their right aſcenſions reckoned from the true equinox. Table V. however does not exhibit the whole effect of the nutation of the earth's axis on the right aſcenſions of the ſtars, except of thoſe in the equator; but a farther correction is neceſſary, which is different for different declinations, and is called the deviation in right aſcenſion, and is found by Table VI. Or the maximum of deviation may be readily found by Table VII. and then it will be only neceſſary to find the argument of deviation by Table VI. in that caſe omitting the logarithm, which is that of the maximum to a ſtar of 45° declination. The fourth and laſt correction of the right aſcenſion of a ſtar (ſuppoſed ſettled to ſome certain epoch) is that of aberration, and may be found from Tables VIII. and IX. Theſe four corrections being applied according to their ſigns, to the mean right aſcenſion of the ſtar ſettled to any given epoch, will give the apparent right aſcenſion of the ſtar reckoned from the true equinox.

After the foregoing Tables were conſtructed, I found it more convenient for my own uſe in reducing obſervations made with the tranſit inſtrument, to expreſs the right aſcenſions of the ſtars in ſidereal time, rather than in parts of the equator in the uſual manner, as ſhewn by the preceding Tables: I therefore divided the numbers in Tables III. V. VII. and IX. by 15, whereby they became converted into Tables XIII. XIV. XV. and XVI. reſpectively, expreſſed in ſeconds of ſidereal time; from whence, with the help of Tables IV. VI. and VIII. as before, the four corrections of preceſſion, equation of the equinoxes, deviation and aberration, will be found in ſidereal time, and applied to the mean right aſcenſion of the ſtar given to any certain epoch in ſidereal time, will give the apparent right aſcenſion in ſidereal time.

Table Xth contains the right aſcenſions and diſtances from the north pole of 34 principal fixt ſtars, ſettled with great accuracy to the beginning of the year 1770, the north polar

lar diſtances from their zenith diſtances obſerved in the year 1765, and the right aſcenſions from a great number of compariſons of the ſtars with one another and with the ſun about both equinoxes from 1765 to 1769 incluſive, according to the ſpirit of the method firſt introduced by Mr. *Flamſtead*, which obviates all errors from an ignorance of the exact quantities of the mean refractions, parallax of the ſun, obliquity of the ecliptic, and latitude of the place. This catalogue conſiſts of the brighteſt ſtars, and at the ſame time neareſt to the equator; on both which accounts they have been ſelected as the propereſt to be uſed continually at the Royal Obſervatory, as well for aſcertaining the rate of going of the clock, as for determining the right aſcenſions of the ſun, moon, and planets. On account of their proximity to the equator, they paſs the vertical wires of the tranſit inſtrument with greater velocity than ſtars remote from the equator, and conſequently the times of their tranſits may be more exactly obſerved; and by their ſuperior brightneſs they are more frequently viſible in the day-time than ſmaller ſtars, and not ſo eaſily obſcured by hazineſs of the air or thin clouds, either by day or night. Moreover, their places are by this means ſettled with the greateſt accuracy, from the reſult of many obſervations continually repeated. This Table contains their right aſcenſions, expreſſed both in parts of the equator, and in ſidereal time, and alſo the annual preceſſions belonging to each, their diſtances from the north pole and the annual variations of the ſame, conſtant numbers for finding the annual argument of the ſtar's aberration in north polar diſtance at any time, and the maxima of aberration in north polar diſtance, by which *data* their aberrations in north polar diſtance may be readily found. The annual variations of right aſcenſion of Sirius, Caſtor, Procyon, Pollux, Regulus, Arcturus, and α Aquilæ, have been corrected for their proper motions, and the annual variations of north polar diſtance of Sirius and Arcturus have been corrected on the ſame account.

The ſtars of this Table being of continual uſe in deducing the right aſcenſions of the planets from obſervations, I have contrived to put the ſum of their equations in right aſcenſion in two Tables, the firſt adapted to every tenth day of the year, and the other to every tenth degree of the mean longitude of the moon's aſcending node. The ſum of the preceſſion from the beginning of the year, aberration, and ſolar inequality of preceſſion, are contained in the XIth Table, and the equation of the equinoxes and deviation are contained in Table XIIth. The ſame equations expreſſed in ſidereal time are contained in Tables XVII. and XVIII. But it is to be obſerved, that an allowance is made for the proper motions of Sirius, Caſtor, Procyon, Pollux, Regulus, Arcturus, and α Aquilæ, in Table XVIIth, whereas no correction on this account was allowed in Table XIth, which was computed before I had determined theſe proper motions. The proper motions which I allowed to theſe ſtars, in right aſcenſion, in Table Xth, was $-0''{,}63$; $-0''{,}28$; $-0''{,}80$; $-0''{,}93$; $-0''{,}41$; $-1''{,}40$ and $+0''{,}57$, in order; or in time $-0''{,}042$; $-0''{,}019$; $-0''{,}053$; $-0''{,}062$; $-0''{,}027$; $-0''{,}093$; $+0''{,}038$. And to Sirius in north polar diſtance $1''{,}20$; and to Arcturus $2''{,}01$, both ſouthwards.

The method which I made uſe of in ſettling the right aſcenſions of the ſtars in Table Xth, though founded upon the ſame principles with Mr. *Flamſtead*'s, is different in its proceſs, and procured me the advantage of the uſe of a greater number of obſervations both of the ſun and ſtars taken in the ſame ſpace of time, and conſequently enabled me to fix the right aſcenſions of the ſtars with greater certainty in a ſhorter ſpace of time. Taking α Aquilæ for my fundamental ſtar, I aſſumed its right aſcenſion as ſettled by Dr. *Bradley*, reducing it to the time of my obſervations by the mean preceſſion, and afterwards making the following correction. By comparing a great many obſerved tranſits of all the ſtars of Table X. with that of α *Aquilæ* in various parts of the year, applying the equations of Tables XVII. and XVIII. I obtained their mean right aſcenſions relative to that of α *Aquilæ* aſſumed, or affected with the ſame error as that of α Aquilæ, and put them into a catalogue; and comparing the tranſits of the ſun near the equinoxes with thoſe of ſeveral of the ſtars of this catalogue obſerved on the ſame day, I obtained the ſun's right aſcenſions, alſo relative to the aſſumed right aſcenſion of α Aquilæ. From the obſerved zenith diſtances of the ſun on the ſame days, corrected for refraction and parallax and error of the line of collimation, with the apparent obliquity of the ecliptic at the time, I alſo deduced the ſun's right aſcenſions:

ſions: and laſtly, by comparing the ſun's right aſcenſions deduced from the obſerved tranſits, with thoſe deduced from his obſerved zenith diſtances at equal or nearly equal declinations of the ſame kind near both equinoxes, I deduced the error of the aſſumed right aſcenſion of α Aquilæ, which came out 3″,8 additive. But, in the interval of 12 years, which paſſed between the ſettling of Dr. *Bradley*'s catalogue about 1755 and mine about 1767, the preceſſion in right aſcenſion was leſſened by 2″,16 by the action of the planets. Therefore, if this had been allowed in aſſuming the right aſcenſion of α Aquilæ from Dr. *Bradley*'s determination of it, the correction of right aſcenſion of α Aquilæ would have come out 5″,96 additive, or at the rate of half a ſecond a year, which agrees very well with the annual proper motion of α Aquilæ deduced from other obſervations.

The number annexed to the right aſcenſion of α Aquilæ in column 6th of the catalogue, ſignifies the number of obſervations of the ſun taken near the two equinoxes, and the numbers annexed to the right aſcenſions of the other ſtars ſignify the number of obſervations of their tranſits made uſe of in ſettling their right aſcenſions relative to that of α Aquilæ; the numbers annexed to the polar diſtances ſignify the number of obſervations of zenith diſtances uſed in determining them.

Sidereal time being meaſured by the diſtance of the meridian from the true vernal equinoctial point of Aries, and mean ſolar time being meaſured by the diſtance of the meridian from a fictitious ſun in the equator, the diſtance of which from the mean point of the vernal equinox is ſuppoſed at all times equal to the ſun's mean longitude, it follows, that the ſun's mean longitude reckoned from the true equinox, and expreſſed in ſidereal time, ſubſtracted from the propoſed ſidereal time, will give the mean time. Tables XIX. XX. and XXI. deduced from *Mayer*'s tables, are deſigned to facilitate this calculation. The epoch of the year in Table XIX. increaſed by the number anſwering to the day of the month in Table XX. and corrected by Table XIV. gives the ſun's mean longitude, expreſſed in ſidereal time, reckoned from the true equinox, at the mean noon of the propoſed day: which therefore ſubſtracted from the propoſed ſidereal time gives the mean time nearly, with which Table XXI. is to be entered; the number taken out of it being the ſun's mean motion ſince the mean noon, ſubſtracted from the mean time found nearly, will give the mean time correct. It is to be obſerved, that the mean time found nearly, or before it is corrected by Table XXI. is a portion of ſidereal time, being the interval by the clock between the tranſit of the fictitious ſun, and the propoſed inſtant; and therefore, to ſhorten the operation, Table XXI. is made to be entered with ſidereal time, inſtead of mean time, commonly uſed in aſtronomical tables.

The aſtronomical refractions and latitude of the Obſervatory were ſettled with the greateſt accuracy by Dr. *Bradley* from his obſervations of the circumpolar ſtars, with the braſs mural quadrant, during the 3 years that it was turned to the north, and of the ſun and ſtars in the ſubſequent years after it was removed to point to the ſouth. The following elegant rule was the reſult of his obſervations; that the refraction at any altitude is to 57 ſeconds, in the direct compound ratio of the tangent of the apparent zenith diſtance, leſſened by 3 times the refraction, to the radius, and of the altitude of the barometer in inches, to 29,6 inches; and in the reciprocal ratio of the height of *Fahrenheit*'s thermometer increaſed by the number 350 to the number 400. Tables XXII. and XXIII. were adapted to this rule; the firſt containing the mean refractions anſwering to 29,6 inches height of the barometer, and 50 degrees height of the thermometer; and the ſecond table containing decimals for multiplying the mean refraction in order to find the correction, which applied to it will give the actual refraction, the ſame as would have been produced by the rule with ſomewhat more trouble. Dr. *Bradley* ſuppoſed the horizontal parallax of the ſun $10\frac{1}{3}$ ſeconds in the calculations from which he inferred the refractions; and I have been informed that he determined the latitude of the Obſervatory 51° 28′ 39″$\frac{1}{2}$. But, had he made uſe of the true parallax 8″,8 or $8\frac{1}{4}$, as found by the two late tranſits of Venus over the ſun, he would have made the refraction at the altitude of 45° to be 56″$\frac{1}{2}$ inſtead of 57″, and the latitude of the Obſervatory exactly 51° 28′ 40″, inſtead of 51° 28′ 39″$\frac{1}{2}$. But his rule for refractions cannot be corrected for all altitudes, without examining his obſervations of refractions made at various times.

The ſun's horizontal parallax in his mean diſtance was found 8″,84 by the tranſit of Venus in 1761, from which Table XXIV. was conſtructed; the obſervations of the total duration between the internal contacts obſerved at *Warhus* and at *Otaheite* in the ſouth ſeas in 1769, give the ſun's mean horizontal parallax 8″,75, or only $\frac{9}{100}$ths of a ſecond leſs than the quantity uſed for it in conſtructing the table.

The 5 following tables from XXV. to XXX. give the 4 corrections of north polar diſtance of ſtars, viz. the preceſſion, deviation, aberration, and ſemiannual ſolar equations, which applied to the mean north polar diſtances ſettled to any certain epoch, will give the apparent polar diſtance.

Beſides the regular diminution of the obliquity of the ecliptic at the rate of 50 ſeconds in a century, or exactly half a ſecond a year, which ariſes from a change of the ecliptic itſelf, it is ſubject to two periodical inequalities, the one produced by the unequal force of the ſun in cauſing the preceſſion of the equinoxes, and the other depending on the nutation of the earth's axis. The firſt inequality is contained in the XXXIſt Table, but combined with the proportional part of the diminution of half a ſecond a year to the given time; the ſecond inequality is exhibited in the XXXIId Table. Theſe two corrections, applied to the mean obliquity firſt found to the beginning of the year, will give the true obliquity at any time. From the obſervations of the 8 ſummer ſolſtices from 1765 to 1772, I found the mean obliquity of the ecliptic to the beginning of the year 1769 upon the forementioned aſſumptions of latitude, refraction, and parallax, to be 23° 28′ 9″,7; whence ſubſtracting half a ſecond a year for every year after 1769, or adding for every year before, the mean obliquity will be found to the beginning of the given year.

The ſix following tables from XXXIII. to XXXVIII. were conſtructed for finding the longitude and latitude of a planet or any zodiacal ſtar, whoſe latitude does not exceed 6°, from its right aſcenſion and declination given from obſervation. Table XXXIII. is entered with the given right aſcenſion; the correction taken out and applied to it according to its ſign, gives the approximate longitude, being the longitude of that point of the ecliptic which hath the ſame right aſcenſion with the planet. Table XXXIV. entered with the approximate longitude, gives the declination of the ſame point of the ecliptic, only with its ſign changed, here called the ecliptic declination. The ſum of the ecliptic declination, and given declination of the planet, due regard being paid to their ſigns, will give the approximate latitude. Table XXXV. entered with the given right aſcenſion on the ſide, and the approximate latitude at top, exhibits the correction of the approximate longitude; which applied to the approximate longitude will give the true longitude very nearly. Table XXXVI. entered with the ecliptic declination on the ſide, and the approximate latitude at top, gives the correction of the approximate latitude; which being ſubſtracted from the ſame, leaves the true latitude very nearly. The 4 tables foregoing, having been conſtructed upon the obliquity of the ecliptic 23° 28′ 0″, can only give the true longitude and latitude when the obliquity is of that quantity. Corrections are therefore neceſſary according to the difference of the obliquity at the time from 23° 28′ 0″, which are to be found by the XXXVIIth and XXXVIIIth Tables.

Table XXXIX. is deſigned to facilitate the calculation in deducing the right aſcenſions of the ſtars from compariſons of them with the ſun, near both equinoxes, in the manner introduced by Mr. *Flamſtead*, and practiced by all Aſtronomers ſince his time.

The longitudes of the ſtars are affected by the common preceſſion of the equinoxes, the equation of the equinoxes depending on the poſition of the moon's node, the aberration, and the ſecular equation. The preceſſion of the equinoxes for any number of complete years is ſhewn in Table XL. and for the days of the month in Table XLI. the equation of the equinoxes is contained in Table XLII. the aberration is to be found by Table XLIII. by multiplying the number of the table by the natural ſecant of the ſtars latitude. Table XLIV. ſerves to find that part of the ſecular variation of the longitude of a ſtar which is different in different ſtars, according to their latitude, which is done by multiplying the number of the table by the natural tangent of the ſtar's latitude. The other part of the ſecular variation of the longitude of the ſtars, and which is common to them all, is —15″,4, diminiſhing the preceſſion taken at the rate of 1° in 71½ years, or 1° 23′ 55″ in a century.

The

The part of the ſecular variation of longitude of the ſtars found by Table XLIV. combined with the conſtant part —15″,43, will give the whole ſecular variation, of which the proportional part muſt be taken for any given number of years. The mean longitude of the ſtar ſettled to ſome certain epoch, is to be corrected by the mean preceſſion, equation of the equinoxes, aberration, and proportional part of the ſecular variation, to obtain its apparent longitude.

The latitude of a ſtar is affected only by aberration and the ſecular variation of latitude. The aberration in latitude is found by entering Table XLIII. with the argument for finding the aberration in longitude, leſſened by 3 ſigns, and multiplying the number taken out of the table by the ſine of the ſtar's latitude, and the aberration will increaſe or diminiſh the latitude according as the ſign of the table is affirmative or negative. The ſecular variation ſuitable to the preſent age is given in Table XLV. the proportional part of which muſt be found anſwering to any given interval of time. The aberration in latitude, and proportional part of the ſecular variation in latitude, applied to the ſtar's latitude ſettled to any certain epoch, will give its apparent latitude.

The three following tables contain the corrections of the ſun's longitude ariſing from the perturbations of the planets, computed by myſelf from the theory of gravity many years ago.

The method of calculating parallaxes by the nonageſimal degree and its altitude, being found very convenient in computing ſolar eclipſes and occultations of fixed ſtars and planets by the moon, I compoſed the XLIXth Table for this purpoſe adapted to the latitude of *Greenwich*; but, as the parallaxes at any place upon the ſurface of a ſpheroid are the ſame as on a ſphere, the radius of which is equal to the line drawn from the centre of the ſpheroid to the given place upon its ſurface, and in a latitude on ſuch ſphere equal to the angle in which the ſaid ſemidiameter of the ſpheroid is inclined to the plane of the equator, in conſtructing this table I made uſe of the latitude of *Greenwich*, leſſened by the angle contained between the ſemidiameter drawn to the centre, and the perpendicular to the ſurface of the ſpheroid, or the line of the direction of gravity, according to Mr. *Mayer's* elegant method pointed out in the 75th page of his tables, and expreſſed in the 17th Problem of the explanation of them. In this method the horizontal parallax made uſe of muſt be ſuited to the length of the ſemidiameter drawn to the centre, by diminiſhing the equatoreal parallax of the moon by an equation ſuitable to the latitude of the place, taken out of the ſame table in page 75 of *Mayer's* tables, as alſo explained in the 17th Problem. The Lth Table gives an equation for adapting the XLIXth Table to a place 1° north of *Greenwich*, or any leſs difference of latitude by taking a proportional part of the equation. But, to adapt the XLIXth Table to a place ſouth of *Greenwich*, the equation muſt be applied with a contrary ſign.

Tables LI. LIII. LIV. and LV. may likewiſe be made uſe of in calculating the parallaxes in ſolar eclipſes and occultations of fixed ſtars and planets by the moon by the method of the parallactic angle, if that ſhould be thought preferable to the other.

Since a planet, as affected by aberration, appears in the place where it ſhould have appeared at the inſtant of the emiſſion of its light, excluſive of this cauſe of error, it follows, that the moſt ſimple as well as the moſt elegant method of computing the apparent geocentric place of a planet is to compute its geocentric place by the common rules for that inſtant, which precedes the given time by the interval of time taken up by light to move from the planet to the earth. The diſtance of the planet from the earth being firſt computed roughly, the time taken up by light in its paſſage from the planet to the earth will be eaſily found by the LIId Table. It is however farther to be obſerved, that the ſun's longitude in this caculation muſt be computed with the epoch of his mean longitude advanced by 20″, becauſe he always appears ſo much too backwards in the ecliptic by aberration, and the tables have been conſtructed without making any correction on this account, and conſequently ſhew the epoch of mean longitude 20″ too little.

The LVIth and laſt Table ſerves to reduce the exterior ſetts of diviſions of the quadrants, or thoſe of 96 parts, into degrees, minutes, and ſeconds. The values of the grand diviſion, and

and of the ſubdiviſion with the vernier ſubjoined taken out of this table, and the odd ſeconds given by the micrometer, in the obſervations of the zenith diſtances, being all added together, will give the zenith diſtance reduced into degrees, minutes, and ſeconds.

I have now nothing farther to add in relation to the tables, but to mention the authorities upon which the numbers made uſe of in conſtructing them are founded. In computing the mean annual preceſſions, I have ſuppoſed the mean preceſſion of the equinoctial points in longitude to be exactly one degree in $71\frac{1}{2}$ years, as deduced by Dr. *Bradley* from the variation of the difference of declination of fixed ſtars near the oppoſite equinoxes ſince *Tycho Brahe*'s time, reſulting from the compariſon of his own obſervations with thoſe of *Tycho Brahe*. As the declinations of the fixed ſtars are not affected by any changes in the plane of the ecliptic, it is evident that the quantity of the preceſſion of the equinoxes thus ſtated is what ariſes from the alteration of the plane of the equator alone, and does not include the ſmall part owing to the ſecular tranſlation of the plane of the ecliptic by the action of the planets. This latter cauſe carries the equinoctial points 16 ſeconds forward in 100 years along the ecliptic, and 18 ſeconds along the equator, diminiſhing the apparent preceſſion of the equinoxes in longitude and right aſcenſion, and conſequently the longitudes and right aſcenſions of the ſtars in a century, by theſe quantities reſpectively. The longitudes of the ſtars are alſo farther affected by the ſame cauſe, but differently according to their longitude and latitude, as expreſſed in the XLIVth Table, intitled, Secular Variation of the Longitude of the Northern Stars. The latitudes of the ſtars are alſo affected by the ſame cauſe, but differently according to their longitude, as expreſſed in the XLVth Table. Theſe two tables are ſuited to the preſent age, and are taken from Mr. *Euler*'s calculations, which correſpond very nearly with the ſecular diminution of the obliquity of the ecliptic, 50 ſeconds, which I had deduced from the quantity of the obliquity of the ecliptic obſerved by the antient *Arabian* Aſtronomers, compared with the preſent obliquity. The right aſcenſions of all the ſtars being diminiſhed at the rate of 18 ſeconds in 100 years, or $0'',18$ in a year, by the motion of the plane of the ecliptic, the mean annual preceſſion of ſtars in right aſcenſion, or that of ſtars in the equator, will be reduced from $46'',20$, which anſwers to a preceſſion in longitude of 1° in $71\frac{1}{2}$ years, to $46'',02$; which quantity is accordingly made uſe of in the precept by the ſides of Tables III. and XIII.

All the Tables depending on the nutation of the earth's axis, viz. V. VI. VII. XII. XIV. XV. XVIII. XXVII. XXXII. and XL. were computed, on ſuppoſition that the nutation of the earth's axis is performed in an ellipſis, whoſe greater axis lying in the ſolſtitial colure is $19'',1$, and leſſer axis lying in the equinoctial colure $14'',2$; namely, in proportion to one another as the coſine of the obliquity of the ecliptic to the coſine of double the obliquity, as given by theory. This quantity of the greateſt nutation of the earth's axis in the ſolſtitial colure is what I found from a ſcrupulous calculation of all Dr. *Bradley*'s obſervations of γ Draconis, which he was pleaſed to communicate to me for that purpoſe. From a like examination of his obſervations of η Urſæ majoris, I found the leſſer axis of the ellipſis of nutation to be $14'',1$, or only one-tenth of a ſecond leſs than what it ſhould be from the obſervations of γ Draconis. But the reſult from the obſervations of γ Draconis is moſt to be depended upon.

In the Tables of Aberration, which are copied from the Abbé *de la Caille*'s *Fundamenta Aſtronomiæ*, with ſome little abridgment of the titles, the greater axis of the ellipſis of aberration is taken 40 ſeconds, agreeable to Dr. *Bradley*'s laſt determination upon the reviſion of his obſervations.

The tables for computing the mean and actual refraction, according to the ſtate of the barometer and thermometer, are alſo computed from Dr. *Bradley*'s determinations.

The table of the ſun's mean parallax is computed according to the reſult of the obſervations of the tranſit of Venus made in the year 1761; and the maximum $8'',84$ only exceeds that reſulting from the total durations of the tranſit of Venus obſerved at *Wardhus* and *Otaheite* in the year 1769 by nine hundredths of a ſecond, as before-mentioned.

The Table of the Maximum of the ſemiannual ſolar nutations was deduced by theory from the quantity of the nutation of the earth's axis ariſing from the moon's action.

The maximum of the Table of the Equation of the ſun's longitude depending on the moon's

moon's poſition, which may be properly called the Menſtrual Parallax, was deduced from the quantities of the nutation of the earth's axis, and the ſun's parallax, above-mentioned.

The table of the equation of the ſun's longitude depending on Jupiter's action, was computed from the quantity of matter of Jupiter ſtated in the *Principia*. The table of the equation of the ſun's longitude depending on the action of Venus, was computed on ſuppoſition that the quantity of matter in Venus is $\frac{1}{378000}$th part of that of the ſun, which was what I found neceſſary to reconcile the ſecular diminution of the obliquity of the ecliptic above ſtated, viz. 50 ſeconds, with the joint actions of all the planets, except Mercury, which I neglected as inconſiderable.

To ſtate the proper motions of the fixed ſtars is an arduous taſk, becauſe we are in want of good obſervations made in former times, to compare with the preſent obſervations. However, as the right aſcenſions of the ſtars in the Xth Table are of continual uſe for deducing the right aſcenſions of the ſun, moon, and planets, from obſervations, I have endeavoured to ſtate the variations in them ariſing from their proper motions as well as I could, from a compariſon of my own obſervations with thoſe of Dr. *Bradley*, Mr. *Flamſtead*, and Mr. *Röemer*, and find thoſe of ſeven of the principal to be as follows; of Sirius—0″,63; of Caſtor—0″,28; of Procyon—0,″80; of Pollux—0″,93; of Regulus—0″,41; of Arcturus—1″,40; and of α Aquilæ+0″,57; which have been combined with their annual preceſſions, found by Table III. in the third column of the Xth Table. The other ſtars of the table do not appear to have any proper motions, none at leaſt that are ſenſible in the ſpace of a few years. Probably the ſame ſtars above-mentioned may have alſo proper motions in declination; but, as they are not ſo important for my uſe, I have only ſtated thoſe of two of them, viz. of Sirius 1″,20 and of Arcturus 2″,01, both ſouthward; which have been alſo combined with their annual preceſſions, found by Table XXV. in the eighth column of the Xth Table. Several calculations relative to this ſubject I received from the late *John Howe*, Eſq; an indefatigable and accurate calculator, who had made a variety of computations upon obſervations antient and modern, and inferred many deductions from Dr. *Bradley*'s Obſervations in particular.

CONTENTS OF THE GENERAL TABLES

FOR

Computing the apparent Places of the fixed Stars from the Mean, and the contrary; for computing the Longitudes and Latitudes of the Planets from their Right Aſcenſions and Declinations; for converting ſidereal into mean Time; with ſeveral other Aſtronomical Tables.

TABLE

I. *Epochs of the mean Longitude of the Moon's Aſcending Node.*
II. *Motion of ditto to every Day in the Year.*
III. *To find the annual Preceſſion of a Star in Right Aſcenſion.*
IV. *Decimal Numbers for multiplying the annual Preceſſion of a Star in Right Aſcenſion, with their Complements.*
V. *Equation of the Equinoxes in Right Aſcenſion, common to all the Stars.*
VI. *To find the Argument of Deviation of a Star in Right Aſcenſion and the Deviation itſelf.*
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X. *The mean Right Aſcenſions and North-polar Diſtances of 34 principal fixed Stars, to the Beginning of 1770, with their annual Preceſſions and Numbers for computing their Aberrations in North-polar Diſtance.*
XI. *Corrections of the Right Aſcenſions of 31 principal fixed Stars to every 10th Day in the Year.*
XII. *Corrections of the Right Aſcenſions of 31 principal fixed Stars to every 10th Degree of Longitude of the Moon's Aſcending Node.*
XIII. *To find the annual Preceſſion of a Star in Right Aſcenſion in Sidereal Time.*
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XVII. *Corrections of the Right Aſcenſions in Sidereal Time of 31 principal fixed Stars to every 10th Day in the Year.*
XVIII. *Corrections of the Right Aſcenſions in Sidereal Time of 31 principal fixed Stars to every 10th Degree of Longitude of the Moon's Aſcending Node.*
XIX. *Epochs of Sun's mean Right Aſcenſion in Sidereal Time.*
XX. *Mean Motion of the Sun in Right Aſcenſion in Sidereal Time to every Day in the Year.*
XXI. *Mean Motion of the Sun in Right Aſcenſion in Sidereal Time, correſponding to Hours and Minutes of Sidereal Time.*
XXII. *The mean Aſtronomical Refractions.*
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XXIV. *The Sun's Parallax in Altitude.*
XXV. *To find the annual Preceſſion of a Star in North-polar Diſtance.*
XXVI. *Decimal Parts of a Year, and their Complements, for multiplying the annual Preceſſion of a Star in North-polar Diſtance.*
XXVII. *A general Table of the Deviation of the Stars in North-polar Diſtance to every 10th Degree of the Star's Right Aſcenſion and the Longitude of the Moon's Aſcending Node.*
XXVIII. *To find the annual Argument of Aberration of a Star in North-polar Diſtance.*
XXIX. *The greateſt Aberrations of Stars in North-polar Diſtance.*
XXX. *Semiannual Solar Equations of North-polar Diſtances of Stars.*
XXXI. *Correction of the Obliquity of the Ecliptic for any Time of the Year.*
XXXII. *Equation of the Obliquity of the Ecliptic.*

Here follow Six Tables *for computing the Longitude and Latitude of the Planets or zodiacal Stars from their given Right Aſcenſions and Declinations.*

XXXIII. *Reduction of the Equator to the Ecliptic.*
XXXIV. *Declination of the Points of the Ecliptic.*

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XLIX. *The nonagesimal Degree of the Ecliptic and its Altitude for the Latitude of* Greenwich *reduced to the Earth's Centre.*
L. *To find how much the nonagesimal Degree and its Altitude are changed by removing One Degree to the North of* Greenwich.
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LIII. *The Angle of Position of any Point of the Ecliptic answering to any given Longitude.*
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LV. *Augmentation of the Angle of Position of a Point in the Ecliptic for the Latitude of the zodiacal Stars.*
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TABLE X. Page 5. Right Aſcenſion of *Capella*; *for* 2 S. 14° 55′ 51″,4 *read* 2 S. 14° 55′ 57″,6.
Annual Preceſſion of *Capella*; *for* 65″,52 *read* 65″,90.
Right Aſcenſion of *Capella* in ſidereal Time; *for* 4^h 59′ 43″,43 *read* 4^h 59′ 43″,84.
Annual Preceſſion of *Capella* in ſidereal Time; *for* 4″,368 *read* 4,″393.
Right Aſcenſion of *Rigel*; *for* 2 S. 15° 52′ 20″,8 *read* 2 S. 15° 52′ 23′,5.
Annual Preceſſion of *Rigel*; *for* 42″,10 *read* 43′,12.
Right Aſcenſion of *Rigel* in ſidereal Time; *for* 5^h 3′ 29″,39 *read* 5^h 3′ 29″,57.
Annual Preceſſion of *Rigel* in ſidereal Time; *for* 2″,807 *read* 2″,875.
Right Aſcenſion of *Sirius*; *for* 3 S. 8° 45′ 11″,2 *read* 3 S. 8° 45′ 7″,8.
Annual Preceſſion of *Sirius*; *for* 40″,56 *read* 39″,56.
Right Aſcenſion of *Sirius* in ſidereal Time; *for* 6^h 35′ 0″,75 *read* 6^h 35′ 0″,52.
Annual Preceſſion of *Sirius* in ſidereal Time; *for* 2″,704 *read* 2″,637.
Number for annual Argument of Aberration of *Antares* in North-polar Diſtance; *for* 0 S. 0° 8′ *read* 9 S. 0° 8′.
Annual Preceſſion of β *Aquilæ*; *for* 43″,86 *read* 44″,17.
Annual Preceſſion of β *Aquilæ* in ſidereal Time; *for* 2″,924 *read* 2″,945.
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Right Aſcenſion of *Fomalhaut*; *for* 11 S. 11° 13′ 22′,5 *read* 11 S. 11° 13′ 24″,3.
Right Aſcenſion of *Fomalhaut* in ſidereal Time; *for* 22^h 44′ 53″,50 *read* 22^h 44′ 53″,62.
Annual Preceſſion of *Fomalhaut* in ſidereal Time; *for* 3″,291 *read* 3′,325.

TABLE XXXIII. Page 25, Reduction of the Equator to the Ecliptic, 1 S. or 7 S. 21° 40′; *for* 2° 22′ 27″,8 *read* 2° 22′ 47″,8.

TABLE XXXV. at the Bottom of the 30th Page, *for* + *read* —, and *for* — *read* +.

——— Page 33d, in the Titles of the laſt Column but One, and that which precedes it, blot out the *Character of Degrees*.

——— Page 34th, under 2 S. or 8 S. 5° and approximate Latitude 3° 20′; *for* 33′ 49″,7 *read* 33′ 41″,7.
In the ſame TABLE and Page, under 2 S. or 8 S. 18° and approximate Latitude 4° 10′; *for* 20′ 54″,0 *read* 20′ 44″,0.

TABLE XXXVIII. Page 37th, at the Bottom of the 7th Column, *for* 1 S. *read* 2 S.

——— Page 39th, *for* TABLE XLIII. *read* TABLE XLII.

TABLE XLIX. Page 43d, in the Title of the 5th Column, blot out the Word *Alt.*

TABLE LI. Page 44, in Column of Sun's Declination; *for* 14′ 40″ *read* 15′ 40″.

TABLE I.

Epochs of the mean Longitude of the Moon's ascending Node.

O.S.	S	D	M	O.S.	S	D	M	N.S.	S	D	M	N.S.	S	D	M	N.S.	S	D	M	N.S.	S	D	M
1690	0	0	15	1722	3	11	19	1753	7	12	17	1785	10	23	20	1817	2	4	27	1849	5	15	31
1691	11	10	55	1723	2	21	59	1754	6	22	57	1786	10	4	1	1818	1	15	7	1850	4	26	11
1692	10	21	32	1724	2	2	36	1755	6	3	37	1787	9	14	41	1819	0	25	48	1851	4	6	51
1693	10	2	13	1725	1	13	16	1756	5	14	14	1788	8	25	18	1820	0	6	25	1852	3	17	28
1694	9	12	53	1726	0	23	56	1757	4	24	55	1789	8	5	58	1821	11	17	5	1853	2	28	8
1695	8	23	33	1727	0	4	37	1758	4	5	35	1790	7	16	39	1822	10	27	45	1854	2	8	48
1696	8	4	10	1728	11	15	14	1759	3	16	15	1791	6	27	19	1823	10	8	26	1855	1	19	29
1697	7	14	51	1729	10	25	54	1760	2	26	52	1792	6	7	56	1824	9	19	3	1856	1	0	6
1698	6	25	31	1730	10	6	34	1761	2	7	33	1793	5	18	36	1825	8	29	43	1857	0	10	46
1699	6	6	11	1731	9	17	15	1762	1	18	13	1794	4	29	17	1826	8	10	23	1858	11	21	26
1700	5	16	48	1732	8	27	52	1763	0	28	53	1795	4	9	57	1827	7	21	4	1859	11	2	7
1701	4	27	29	1733	8	8	32	1764	0	9	30	1796	3	20	34	1828	7	1	41	1860	10	12	44
1702	4	8	9	1734	7	19	12	1765	11	20	11	1797	3	1	14	1829	6	12	21	1861	9	23	24
1703	3	18	49	1735	6	29	53	1766	11	0	51	1798	2	11	55	1830	6	23	1	1862	9	4	4
1704	2	29	26	1736	6	10	30	1767	10	11	31	1799	1	22	35	1831	5	3	42	1863	8	14	45
1705	2	10	6	1737	5	21	10	1768	9	22	8	1800	1	3	16	1832	4	14	19	1864	7	25	22
1706	1	20	47	1738	5	1	50	1769	9	2	49	1801	0	13	55	1833	3	24	59	1865	7	6	2
1707	1	1	27	1739	4	12	31	1770	8	13	29	1802	11	24	36	1834	3	5	39	1866	6	16	42
1708	0	12	4	1740	3	23	8	1771	7	24	9	1803	11	5	16	1835	2	16	20	1867	5	27	23
1709	11	22	44	1741	3	3	48	1772	7	4	46	1804	10	15	53	1836	1	26	57	1868	5	8	0
1710	11	3	25	1742	2	14	28	1773	6	15	27	1805	9	26	33	1837	1	7	37	1869	4	18	40
1711	10	14	5	1743	1	25	9	1774	5	26	7	1806	9	7	14	1838	0	18	17	1870	3	29	20
1712	9	24	42	1744	1	5	46	1775	5	6	47	1807	8	17	54	1839	11	28	58	1871	3	10	1
1713	9	5	22	1745	0	16	26	1776	4	17	24	1808	7	28	31	1840	11	9	35	1872	2	20	38
1714	8	16	3	1746	11	27	6	1777	3	28	5	1809	7	9	11	1841	10	20	15	1873	2	1	18
1715	7	26	43	1747	11	7	47	1778	3	8	45	1810	6	19	52	1842	10	0	55	1874	1	11	58
1716	7	7	20	1748	10	18	24	1779	2	19	25	1811	6	0	32	1843	9	11	35	1875	0	22	39
1717	6	18	0	1749	9	29	4	1780	2	0	2	1812	5	11	9	1844	8	22	13	1876	0	3	16
1718	5	28	41	1750	9	9	44	1781	1	10	42	1813	4	21	49	1845	8	2	53	1877	11	13	56
1719	5	9	21	1751	8	20	24	1782	0	21	23	1814	4	2	30	1846	7	13	33	1878	10	24	36
1720	4	19	58	1752	8	1	2	1783	0	2	3	1815	3	13	10	1847	6	24	13	1879	10	5	17
1721	4	0	38	N.S. 1752	8	1	37	1784	11	12	40	1816	2	23	47	1848	6	4	51	1880	9	15	54

TABLE II.

Retrograde Motion of the Moon's Node to every Day in the Year.
Subtract from the Longitude of the Epoch.

Days.	Jan.		Feb		Mar.		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	D	M	D	M	D	M	D	M	D	M	D	M	D	M	D	M	D	M	D	M	D	M	D	M
1	0	3	1	42	3	11	4	49	6	24	8	3	9	38	11	17	12	55	14	31	16	9	17	44
2	0	6	1	45	3	14	4	52	6	28	8	6	9	41	11	20	12	58	14	34	16	12	17	48
3	0	10	1	48	3	17	4	55	6	31	8	9	9	45	11	23	13	2	14	37	16	15	17	51
4	0	13	1	51	3	20	4	59	6	34	8	12	9	48	11	26	13	5	14	40	16	19	17	54
5	0	16	1	54	3	23	5	2	6	37	8	16	9	51	11	29	13	8	14	43	16	22	17	57
6	0	19	1	58	3	27	5	5	6	40	8	19	9	54	11	33	13	11	14	46	16	25	18	0
7	0	22	2	1	3	30	5	8	6	44	8	22	9	57	11	36	13	14	14	50	16	28	18	3
8	0	25	2	4	3	33	5	11	6	47	8	25	10	1	11	39	13	17	14	53	16	31	18	7
9	0	29	2	7	3	36	5	15	6	50	8	28	10	4	11	42	13	21	14	56	16	34	18	10
10	0	32	2	10	3	39	5	18	6	53	8	32	10	7	11	45	13	24	14	59	16	38	18	13
11	0	35	2	13	3	42	5	21	6	56	8	35	10	10	11	49	13	27	15	2	16	41	18	16
12	0	38	2	17	3	46	5	24	6	59	8	38	10	13	11	52	13	30	15	6	16	44	18	19
13	0	41	2	20	3	49	5	27	7	3	8	41	10	16	11	55	13	33	15	9	16	47	18	23
14	0	44	2	23	3	52	5	30	7	6	8	44	10	20	11	58	13	37	15	12	16	50	18	26
15	0	48	2	26	3	55	5	34	7	9	8	47	10	23	12	1	13	40	15	15	16	54	18	29
16	0	51	2	29	3	58	5	37	7	12	8	51	10	26	12	4	13	43	15	18	16	57	18	32
17	0	54	2	33	4	1	5	40	7	15	8	54	10	29	12	8	13	46	15	21	17	0	18	35
18	0	57	2	36	4	5	5	43	7	18	8	57	10	32	12	11	13	49	15	25	17	3	18	38
19	1	0	2	39	4	8	5	46	7	22	9	0	10	36	12	14	13	52	15	28	17	6	18	42
20	1	4	2	42	4	11	5	50	7	25	9	3	10	39	12	17	13	56	15	31	17	9	18	45
21	1	7	2	45	4	14	5	53	7	28	9	7	10	42	12	20	13	59	15	34	17	13	18	48
22	1	10	2	48	4	17	5	56	7	31	9	10	10	45	12	23	14	2	15	37	17	16	18	51
23	1	13	2	52	4	21	5	59	7	34	9	13	10	48	12	27	14	5	15	40	17	19	18	54
24	1	16	2	55	4	24	6	2	7	38	9	16	10	51	12	30	14	8	15	44	17	22	18	57
25	1	19	2	58	4	27	6	5	7	41	9	19	10	55	12	33	14	11	15	47	17	25	19	1
26	1	23	3	1	4	30	6	9	7	44	9	22	10	58	12	36	14	15	15	50	17	28	19	4
27	1	26	3	4	4	33	6	12	7	47	9	26	11	1	12	39	14	18	15	53	17	32	19	7
28	1	29	3	7	4	36	6	15	7	50	9	29	11	4	12	43	14	21	15	56	17	35	19	10
29	1	32			4	40	6	18	7	53	9	32	11	7	12	46	14	24	16	0	17	38	19	13
30	1	35			4	43	6	21	7	57	9	35	11	10	12	49	14	27	16	3	17	41	19	17
31	1	38			4	46			8	0			11	14	12	52			16	6			19	20

In the Months Jan. and Feb. in Leap-Year, take out for the Day preceding the given Day.

TABLE III.

To find the Annual Preceſſion of a Star in Right Aſcenſion.

Argum. Right Aſcenſ. of Star.

S	0 +	1 +	2 +	S
S	6 —	7 —	8 —	S
D	″	″	″	D
0	0,00	10,02	17,36	30
1	0,35	10,32	17,53	29
2	0,70	10,62	17,70	28
3	1,05	10,92	17,86	27
4	1,40	11,21	18,02	26
5	1,75	11,50	18,17	25
6	2,09	11,79	18,32	24
7	2,44	12,07	18,46	23
8	2,79	12,35	18,59	22
9	3,14	12,62	18,72	21
10	3,48	12,89	18,84	20
11	3,83	13,15	18,96	19
12	4,17	13,41	19,07	18
13	4,51	13,67	19,17	17
14	4,84	13,93	19,27	16
15	5,19	14,18	19,37	15
16	5,53	14,42	19,45	14
17	5,86	14,66	19,53	13
18	6,20	14,90	19,61	12
19	6,53	15,13	19,68	11
20	6,86	15,36	19,74	10
21	7,19	15,58	19,80	9
22	7,51	15,80	19,85	8
23	7,83	16,01	19,90	7
24	8,15	16,22	19,94	6
25	8,47	16,42	19,97	5
26	8,79	16,62	20,00	4
27	9,10	16,82	20,02	3
28	9,41	17,00	20,03	2
29	9,72	17,19	20,04	1
30	10,02	17,36	20,05	0
S	5 +	4 +	3 +	S
S	11 —	10 —	9 —	S

Multiply by natural Tang. of Star's Declination, and apply it, according to the Sign, to 46″,02, gives annual Preceſſion in Right Aſcenſion of a Northern Star; but apply it with the Sign changed for a Southern one.

TABLE IV.

Decimal Numbers for multiplying the annual Preceſſion of a Star in Right Aſcenſion, with their Complements.

Days.		Dec.	Compl.	Days.		Dec.	Compl.	Days.		Dec.	Compl.
Jan.	1	,01	,99	May	16	,35	,65	Sept.	4	,69	,31
	3	,02	,98		19	,36	,64		9	,70	,30
	6	,03	,97		22	,37	,63		14	,71	,29
	9	,04	,96		25	,38	,62		19	,72	,28
	12	,05	,95		28	,39	,61		24	,73	,27
	15	,06	,94		31	,40	,60		29	,74	,26
	19	,07	,93								
	22	,08	,92	June	3	,41	,59	Oct.	4	,75	,25
	25	,09	,91		6	,42	,58		9	,76	,24
	28	,10	,90		9	,43	,57		14	,77	,23
					12	,44	,56		18	,78	,22
Feb.	1	,11	,89		15	,45	,55		23	,79	,21
	4	,12	,88		18	,46	,54		27	,80	,20
	8	,13	,87		21	,47	,53		31	,81	,19
	12	,14	,86		24	,48	,52				
	16	,15	,85		27	,49	,51	Nov.	4	,82	,18
	21	,16	,84		29	,50	,50		8	,83	,17
	25	,17	,83						11	,84	,16
				July	2	,51	,49		15	,85	,15
Mar.	2	,18	,82		5	,52	,48		18	,86	,14
	7	,19	,81		8	,53	,47		21	,87	,13
	12	,20	,80		11	,54	,46		24	,88	,12
	17	,21	,79		14	,55	,45		27	,89	,11
	22	,22	,78		17	,56	,44		30	,90	,10
	27	,23	,77		20	,57	,43				
					23	,58	,42	Dec.	3	,91	,09
Apr.	1	,24	,76		27	,59	,41		6	,92	,08
	6	,25	,75		30	,60	,40		9	,93	,07
	11	,26	,74						12	,94	,06
	15	,27	,73	Aug.	3	,61	,39		15	,95	,05
	20	,28	,72		6	,62	,38		18	,96	,04
	24	,29	,71		10	,63	,37		21	,97	,03
	28	,30	,70		14	,64	,36		23	,98	,02
					18	,65	,35		26	,99	,01
May	2	,31	,69		22	,66	,34		29	1,00	,00
	5	,32	,68		26	,67	,33		31	1,01	—,01
	9	,33	,67		30	,68	,32				
	12	,34	,66								

N. B. The Effect of the ſmall ſemi-annual Equation of Preceſſion is allowed for in this Table.

TABLE V.

Equation of the Equinoxes in R. Aſcenſion. Common to all the Stars.

Argum. Long. of ☽'s ☌.

Long. ☽'s ☌.	0 S —	1 S —	2 S —	
	6 S +	7 S +	8 S +	
D	″	″	″	D
0	0,0	8,2	14,2	30
1	0,3	8,4	14,3	29
2	0,6	8,7	14,5	28
3	0,9	8,9	14,6	27
4	1,1	9,2	14,7	26
5	1,4	9,4	14,8	25
6	1,7	9,6	15,0	24
7	2,0	9,8	15,1	23
8	2,3	10,1	15,2	22
9	2,6	10,3	15,3	21
10	2,8	10,5	15,4	20
11	3,1	10,7	15,5	19
12	3,4	11,0	15,6	18
13	3,7	11,2	15,7	17
14	4,0	11,4	15,7	16
15	4,2	11,6	15,8	15
16	4,5	11,8	15,9	14
17	4,8	12,0	16,0	13
18	5,1	12,2	16,0	12
19	5,3	12,4	16,1	11
20	5,6	12,5	16,1	10
21	5,9	12,7	16,2	9
22	6,1	12,9	16,2	8
23	6,4	13,1	16,2	7
24	6,7	13,2	16,3	6
25	6,9	13,4	16,3	5
26	7,2	13,6	16,3	4
27	7,4	13,7	16,3	3
28	7,7	13,9	16,4	2
29	7,9	14,0	16,4	1
30	8,2	14,2	16,4	0
	5 S —	4 S —	3 S —	Long. ☽'s ☌.
	11 S +	10 S +	9 +	

TABLE VI.

To find the Argument of Deviation of a Star in Right Aſcenſion, and the Deviation itſelf.

Argum. Right Aſcenſion of Star.

	Subtract B from Right Aſcenſion of Star.						
	0 S / 6 S		1 S / 7 S		2 S / 8 S		
	B	Log.	B	Log.	B	Log.	
D	D M		D M		D M		D
0	0 0	0,980	6 45	0,954	7 48	0,892	30
1	0 15	0,980	6 54	0,953	7 41	0,889	29
2	0 31	0,980	7 3	0,951	7 32	0,887	28
3	0 46	0,980	7 12	0,949	7 23	0,885	27
4	1 1	0,979	7 20	0,947	7 14	0,883	26
5	1 16	0,979	7 28	0,946	7 4	0,881	25
6	1 32	0,979	7 36	0,944	6 53	0,879	24
7	1 47	0,978	7 43	0,942	6 41	0,877	23
8	2 2	0,978	7 49	0,940	6 29	0,875	22
9	2 17	0,978	7 55	0,938	6 17	0,873	21
10	2 31	0,977	8 1	0,936	6 3	0,871	20
11	2 46	0,977	8 6	0,934	5 49	0,869	19
12	3 0	0,976	8 10	0,932	5 35	0,868	18
13	3 15	0,975	8 14	0,930	5 20	0,866	17
14	3 29	0,974	8 17	0,927	5 4	0,865	16
15	3 43	0,973	8 20	0,925	4 48	0,863	15
16	3 57	0,973	8 22	0,923	4 31	0,862	14
17	4 11	0,972	8 24	0,921	4 14	0,860	13
18	4 24	0,971	8 25	0,919	3 56	0,859	12
19	4 37	0,970	8 25	0,916	3 38	0,858	11
20	4 50	0,968	8 25	0,914	3 20	0,857	10
21	5 3	0,967	8 25	0,912	3 1	0,856	9
22	5 16	0,966	8 23	0,910	2 41	0,855	8
23	5 28	0,965	8 21	0,907	2 22	0,854	7
24	5 40	0,963	8 18	0,905	2 2	0,854	6
25	5 51	0,962	8 15	0,903	1 42	0,853	5
26	6 3	0,960	8 11	0,900	1 22	0,853	4
27	6 14	0,959	8 6	0,898	1 2	0,852	3
28	6 24	0,957	8 1	0,896	0 42	0,852	2
29	6 35	0,956	7 55	0,894	0 21	0,852	1
30	6 45	0,954	7 48	0,892	0 0	0,852	0
	11 S / 5 S		10 S / 4 S		9 S / 3 S		
	Add B to Right Aſcenſion of Star.						

Subtract the Right Aſcenſion of Star corrected by the Table from the Longitude of the Moon's Aſcending Node, or on the contrary ſubtract the Longitude of the Moon's Node from the Right Aſc. of the Star corrected by this Table, ſo that the Difference may not exceed 6 Signs; and you will have the Argument of Deviation. Add the Log. Coſine thereof to the Logarithm taken out of the Table, and the Log. Tang. of the Star's Declination, the Sum, abating 20 from the Index, is the Logarithm of the Deviation in Seconds; which will be ſubtractive if the Argument is leſs than 3 S. but additive if the Argument is greater than 3 S. This is to be underſtood with reſpect to a Star having North Declination; but if the Star have South Declination the Signs will be contrary, viz. additive, if the Argument of Deviation is leſs than 3 S. and ſubtractive if it is greater than 3 Signs.

TABLE VII.

Greateſt Deviations of Stars in Right Aſcenſion.

Enter the Table with the Right Aſcenſion of the Star at the Top or Bottom of the Page, and with its Declination on the Side.

Declination of Star.	Right Aſcenſion of Star.																				
	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	SD
	0. 0	0. 5	0. 10	0. 15	0. 20	0. 25	1. 0	1. 5	1. 10	1. 15	1. 20	1. 25	2. 0	2. 5	2. 10	2. 15	2. 20	2. 25	3. 0		
	6. 0	6. 5	6. 10	6. 15	6. 20	6. 25	7. 0	7. 5	7. 10	7. 15	7. 20	7. 25	8. 0	8. 5	8. 10	8. 15	8. 20	8. 25	9. 0		
D	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"		
0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		
5	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,7	0,7	0,7	0,7	0,7	0,7	0,6	0,6	0,6	0,6		
10	1,7	1,7	1,7	1,7	1,6	1,6	1,6	1,6	1,5	1,5	1,5	1,4	1,4	1,3	1,3	1,3	1,3	1,3	1,3		
15	2,6	2,6	2,5	2,5	2,5	2,5	2,4	2,4	2,3	2,3	2,2	2,1	2,1	2,0	2,0	2,0	1,9	1,9	1,9		
20	3,5	3,5	3,5	3,4	3,4	3,3	3,3	3,2	3,1	3,1	3,0	2,9	2,8	2,8	2,7	2,7	2,6	2,6	2,6		
25	4,5	4,5	4,4	4,4	4,3	4,3	4,2	4,1	4,0	3,9	3,8	3,7	3,6	3,5	3,5	3,4	3,4	3,3	3,3		
30	5,5	5,5	5,5	5,4	5,4	5,3	5,2	5,1	5,0	4,9	4,7	4,6	4,5	4,4	4,3	4,2	4,2	4,1	4,1		
35	6,7	6,7	6,6	6,6	6,5	6,4	6,3	6,2	6,0	5,9	5,7	5,6	5,5	5,3	5,2	5,1	5,0	5,0	5,0		
40	8,0	8,0	8,0	7,9	7,8	7,7	7,6	7,4	7,2	7,1	6,9	6,7	6,5	6,4	6,2	6,1	6,0	6,0	6,0		
45	9,55	9,53	9,48	9,40	9,29	9,16	9,00	8,83	8,63	8,41	8,20	8,00	7,80	7,60	7,43	7,29	7,19	7,13	7,11		
50	11,4	11,4	11,3	11,2	11,1	10,9	10,7	10,5	10,3	10,1	9,8	9,5	9,3	9,1	8,9	8,7	8,6	8,5	8,5		
55	13,6	13,6	13,6	13,4	13,3	13,1	12,9	12,6	12,3	12,0	11,7	11,4	11,1	10,9	10,6	10,4	10,3	10,2	10,2		
60	16,6	16,5	16,4	16,3	16,1	15,9	15,6	15,3	14,9	14,6	14,2	13,8	13,5	13,2	12,9	12,7	12,5	12,4	12,3		
65	20,5	20,5	20,3	20,2	19,9	19,6	19,3	18,9	18,5	18,1	17,6	17,1	16,7	16,3	16,0	15,6	15,4	15,3	15,2		
70	26,2	26,2	26,1	25,8	25,5	25,2	24,7	24,3	23,7	23,1	22,5	22,0	21,4	20,9	20,4	20,0	19,8	19,6	19,5		
	S	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D		
	12. 0	11. 25	11. 20	11. 15	11. 10	11. 5	11. 0	10 25	10.20	10 15	10.10	10. 5	10. 0	9. 25	9. 20	9. 15	9. 10	9. 5	9. 0		
	0	5. 25	5. 20	5. 15	5. 10	5. 5	5. 0	4. 25	4. 20	4. 15	4. 10	4. 5	4. 0	3. 25	3. 20	3. 15	3. 10	3. 5	3. 0		
	Right Aſcenſion of Star.																				

If the Declination of the Star does not exceed 70°, take the Maximum of Deviation out of this Table; but if the Declination of the Star is greater, find the Maximum by multiplying the Number in this Table anſwering to the Right Aſcenſion of the Star, and the Declination 45° by the natural Tangent of the Star's Declination, or elſe find it by the preceding Table, VI. Multiply the Maximum ſo found by the natural Co-ſine of the Argument of Deviation found by the Help of the preceding Table; the Product is the Deviation; which will be ſubtractive for a Northern Star, and additive for a Southern Star, if the Argument of Deviation is leſs than Three Signs; but will be additive for a Northern Star, and ſubtractive for a Southern Star, if the Argument is greater than Three Signs.

TABLE VIII.

To find the Annual Argument of Aberration of a Star in Right Aſcenſion.

Argument. Right Aſcenſion of the Star.

	Add to Star's Right Aſcenſion.						
S.	0.	VI.	I.	VII.	II.	VIII	S.
D.	D.	M.	D.	M.	D.	M.	D.
0	0	0	2	8	2	8	30
1	0	6	2	11	2	6	29
2	0	11	2	13	2	3	28
3	0	16	2	15	2	0	27
4	0	21	2	17	1	57	26
5	0	26	2	19	1	54	25
6	0	31	2	21	1	50	24
7	0	36	2	23	1	47	23
8	0	41	2	24	1	43	22
9	0	46	2	25	1	39	21
10	0	51	2	26	1	35	20
11	0	56	2	27	1	31	19
12	1	0	2	27	1	27	18
13	1	5	2	28	1	23	17
14	1	10	2	28	1	19	16
15	1	14	2	28	1	14	15
16	1	19	2	28	1	10	14
17	1	23	2	28	1	5	13
18	1	27	2	27	1	0	12
19	1	31	2	27	0	56	11
20	1	35	2	26	0	51	10
21	1	39	2	25	0	46	9
22	1	43	2	24	0	41	8
23	1	47	2	23	0	36	7
24	1	50	2	21	0	31	6
25	1	54	2	19	0	26	5
26	1	57	2	17	0	21	4
27	2	0	2	15	0	16	3
28	2	3	2	13	0	11	2
29	2	6	2	11	0	6	1
30	2	8	2	8	0	0	0
S.	XI.	V.	X.	IV.	IX.	III.	S.
	Subtract from Star's Right Aſc.						

Subtract the Right Aſcenſion of the Star corrected by this Table from the Sun's Longitude, or on the contrary ſubtract the Sun's Longitude from the Right Aſcenſion of the Star corrected by this Table, ſo that the Remainder may be leſs than 6 Signs; and you will have the Annual Argument of Aberration in Right Aſc. always leſs than 6 Signs.

TABLE IX.

Greateſt Aberrations of Stars in Right Aſcenſion.

The Argument at Top, is the Declination of the Star to every Three Degrees.

The Argument on the Sides, is the Right Aſcenſion of the Star to every Three Degrees.

Right Aſc. of Star.	Declination of Star.																									Right Aſc. of Star.
	D. 0	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	
S. D. S.	Log.	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	S. D. S.
0 0 VI	1,2635	18,3	18,4	18,4	18,6	18,8	19,0	19,3	19,7	20,1	20,6	21,2	21,9	22,7	23,6	24,7	26,0	27,4	29,2	31,2	33,7	36,7	40,4	45,1	V 30 XI
3	1,2636	18,3	18,4	18,4	18,6	18,8	19,0	19,3	19,7	20,1	20,6	21,2	21,9	22,7	23,6	24,7	26,0	27,5	29,2	31,2	33,7	36,7	40,4	45,1	27
6	1,2639	18,4	18,4	18,5	18,6	18,8	19,0	19,3	19,7	20,1	20,6	21,2	21,9	22,7	23,6	24,7	26,0	27,5	29,2	31,2	33,7	36,7	40,5	45,1	24
9	1,2645	18,4	18,4	18,5	18,6	18,8	19,0	19,3	19,7	20,1	20,6	21,2	21,9	22,7	23,7	24,7	26,0	27,5	29,2	31,3	33,8	36,8	40,5	45,2	21
12	1,2652	18,4	18,4	18,5	18,6	18,8	19,1	19,4	19,7	20,2	20,7	21,3	22,0	22,8	23,7	24,8	26,1	27,5	29,3	31,3	33,8	36,8	40,6	45,3	18
15	1,2663	18,5	18,5	18,6	18,7	18,9	19,1	19,4	19,8	20,2	20,7	21,3	22,0	22,8	23,8	24,8	26,1	27,6	29,3	31,4	33,9	36,9	40,7	45,4	15
18	1,2674	18,5	18,5	18,6	18,7	18,9	19,2	19,5	19,8	20,3	20,8	21,4	22,1	22,9	23,8	24,9	26,2	27,7	29,4	31,5	34,0	37,0	40,8	45,5	12
21	1,2687	18,6	18,6	18,7	18,8	19,0	19,2	19,5	19,9	20,3	20,8	21,4	22,1	23,0	23,9	25,0	26,3	27,7	29,5	31,6	34,1	37,1	40,9	45,6	9
24	1,2702	18,6	18,7	18,7	18,9	19,0	19,3	19,6	20,0	20,4	20,9	21,5	22,2	23,0	24,0	25,1	26,4	27,8	29,6	31,7	34,2	37,3	41,0	45,8	6
27	1,2718	18,7	18,7	18,8	18,9	19,1	19,4	19,7	20,0	20,5	21,0	21,6	22,3	23,1	24,1	25,2	26,5	28,0	29,7	31,8	34,3	37,4	41,2	46,0	3
I 0 VII	1,2735	18,8	18,8	18,9	19,0	19,2	19,4	19,7	20,1	20,5	21,1	21,7	22,4	23,2	24,2	25,3	26,6	28,1	29,8	31,9	34,5	37,5	41,3	46,2	V 0 XI
3	1,2753	18,9	18,9	19,0	19,1	19,3	19,5	19,8	20,2	20,6	21,2	21,8	22,5	23,3	24,3	25,4	26,7	28,2	30,0	32,1	34,6	37,7	41,5	46,3	IV 27 X
6	1,2772	18,9	18,9	19,1	19,2	19,4	19,6	19,9	20,3	20,7	21,2	21,9	22,6	23,4	24,4	25,5	26,8	28,3	30,1	32,2	34,8	37,9	41,7	46,5	24
9	1,2792	19,0	19,0	19,1	19,3	19,4	19,7	20,0	20,4	20,8	21,3	22,0	22,7	23,5	24,5	25,6	26,9	28,4	30,2	32,4	34,9	38,0	41,9	46,8	21
12	1,2811	19,1	19,1	19,2	19,3	19,5	19,8	20,1	20,5	20,9	21,4	22,1	22,8	23,6	24,6	25,7	27,0	28,6	30,4	32,5	35,1	38,2	42,1	47,0	18
15	1,2831	19,2	19,2	19,3	19,4	19,6	19,9	20,2	20,6	21,0	21,5	22,2	22,9	23,7	24,7	25,8	27,1	28,7	30,5	32,7	35,2	38,4	42,3	47,2	15
18	1,2850	19,3	19,3	19,4	19,5	19,7	20,0	20,3	20,6	21,1	21,6	22,3	23,0	23,8	24,8	25,9	27,3	28,8	30,6	32,8	35,4	38,6	42,5	47,4	12
21	1,2869	19,4	19,4	19,5	19,6	19,8	20,0	20,4	20,7	21,2	21,7	22,4	23,1	23,9	24,9	26,1	27,4	28,9	30,8	33,0	35,6	38,7	42,6	47,6	9
24	1,2888	19,4	19,5	19,6	19,7	19,9	20,1	20,4	20,8	21,3	21,8	22,5	23,2	24,0	25,0	26,2	27,5	29,1	30,9	33,1	35,7	38,9	42,8	47,8	6
27	1,2905	19,5	19,5	19,6	19,8	20,0	20,2	20,5	20,9	21,4	21,9	22,5	23,3	24,1	25,1	26,3	27,6	29,2	31,0	33,2	35,8	39,0	43,0	48,0	3
II 0 VIII	1,2922	19,6	19,6	19,7	19,8	20,0	20,3	20,6	21,0	21,5	22,0	22,6	23,4	24,2	25,2	26,4	27,7	29,3	31,1	33,4	36,0	39,2	43,2	48,2	IV 0 X
3	1,2938	19,7	19,7	19,8	19,9	20,1	20,4	20,7	21,1	21,5	22,1	22,7	23,5	24,3	25,3	26,5	27,8	29,4	31,3	33,5	36,1	39,3	43,3	48,4	III 27 IX
6	1,2952	19,7	19,8	19,8	20,0	20,2	20,4	20,7	21,1	21,6	22,1	22,8	23,5	24,4	25,4	26,6	27,9	29,5	31,4	33,6	36,2	39,5	43,5	48,6	24
9	1,2965	19,8	19,8	19,9	20,0	20,2	20,5	20,8	21,2	21,7	22,2	22,9	23,6	24,5	25,5	26,6	28,0	29,6	31,5	33,7	36,4	39,6	43,6	48,7	21
12	1,2977	19,8	19,9	20,0	20,1	20,3	20,5	20,9	21,3	21,7	22,3	22,9	23,7	24,5	25,5	26,7	28,1	29,7	31,5	33,8	36,5	39,7	43,7	48,8	18
15	1,2987	19,9	19,9	20,0	20,1	20,3	20,6	20,9	21,3	21,8	22,3	23,0	23,7	24,6	25,6	26,8	28,1	29,7	31,6	33,9	36,5	39,8	43,8	48,9	15
18	1,2995	19,9	20,0	20,0	20,2	20,4	20,6	21,0	21,4	21,8	22,4	23,0	23,8	24,6	25,7	26,8	28,2	29,8	31,7	33,9	36,6	39,9	43,9	49,0	12
21	1,3002	20,0	20,0	20,1	20,2	20,4	20,7	21,0	21,4	21,9	22,4	23,1	23,8	24,7	25,7	26,9	28,2	29,8	31,7	34,0	36,7	39,9	44,0	49,1	9
24	1,3007	20,0	20,0	20,1	20,2	20,4	20,7	21,0	21,4	21,9	22,4	23,1	23,8	24,7	25,7	26,9	28,3	29,9	31,8	34,0	36,7	40,0	44,0	49,1	6
27	1,3009	20,0	20,0	20,1	20,2	20,4	20,7	21,0	21,4	21,9	22,4	23,1	23,8	24,7	25,7	26,9	28,3	29,9	31,8	34,0	36,7	40,0	44,0	49,2	3
30	1,3010	20,0	20,0	20,1	20,3	20,4	20,7	21,0	21,4	21,9	22,4	23,1	23,9	24,7	25,7	26,9	28,3	29,9	31,8	34,0	36,7	40,0	44,1	49,2	III 0 IX

With the Right Aſcenſion of the Star and its Declination (if leſs than 66 Degrees) take its greateſt Aberration in Right Aſcenſion out of this Table, and multiply it by the natural Coſine of the Annual Argument of Aberration found by the preceding Table, and you will have the Aberration in Right Aſcenſion; to be ſubtracted from the Star's Right Aſcenſion, if the Annual Argument is leſs than 3 Signs; and to be added to the ſame, if the Annual Argument is greater than 3 Signs.

N. B. But if the Declination of the Star exceed 66 Degrees, take the Logarithm answering to the Right Aſcenſion of the Star out of the Second Column of this Table, which added to the Log. Coſine of the Annual Argument, and the Log. Secant of the Star's Declination (20 being rejected from the Index) gives the Logarithm of the Aberration in Right Aſcenſion in Seconds, to be ſubtracted from or added to the Right Aſcenſion of the Star, according as the Annual Argument is leſs or more than 3 Signs.

TABLE X.

The mean Right Aſcenſions and North-polar Diſtances of Thirty-four Principal Fixed Stars, to the Beginning of the Year 1770, with their annual Preceſſions.

Names of the Stars.	Right Aſc. in Signs, Degrees, &c.	Annual Preceſſion	Right Aſc. in Time.	Annual Preceſſion in Time.	Numb. of Obſervations.	Diſtance from North Pole.	Annual Preceſſion.	Numb. of Obſ.	Magnitude.	Numb. for annual Arg. of Aber. in N.P.D.	Max. of Aber. in N.P.D.
	S ° ′ ″	″	h ′ ″	″		° ′ ″	″			S ° ′	″
γ Pegaſi	0. 0. 21. 14,1	46,05	0. 1. 24,94	3,070	125	76. 5. 45,9	—20,05	4	2	7. 1. 45	9,1
α Arietis	0. 28. 33. 48,9	49,96	1. 54. 15,26	3,331	101	67. 38. 7,3	—17,60	3	2. 3	7. 29. 0	7,2
α Ceti	1. 12. 34. 12,0	46,77	2. 50. 16,80	3,118	39	86. 49. 21,9	—14,76	3	2	6. 6. 21	7,3
Aldebaran	2. 5. 41. 10,5	51,27	4. 22. 44,70	3,418	122	73. 58. 20,7	— 8,26	10	1	7. 6. 50	3,8
Capella	2. 14. 55. 51,4	65,52	4. 59. 43,43	4,368	22	44. 15. 43,6	— 5,21	7	1	11. 2. 0	8,0
Rigel	2. 15. 52. 20,8	42,10	5. 3. 29,39	2,807	73	98. 29. 0,2	— 4,88	4	1	5. 26. 0	10,5
β Tauri	2. 17. 56. 32,4	56,61	5. 11. 46,16	3,774	14	61. 36. 33,7	— 4,19	3	2	10. 7. 0	2,5
α Orionis	2. 25. 40. 51,9	48,59	5. 42. 43,46	3,239	156	82. 39. 16,5	— 1,51	9	1	6. 2. 2	5,6
Sirius	3. 8. 45. 11,2	40,56	6. 35. 0,75	2,704	71	106. 24. 56,1	+ 4,25	12	1	6. 3. 46	12,7
Caſtor	3. 19. 58. 16,3	57,69	7. 19. 53,09	3,846	51	57. 37. 51,5	+ 6,85	3	2	1. 25. 15	4,4
Procyon	3. 21. 48. 45,0	47,11	7. 27. 15,00	3,141	106	84. 12. 4,8	+ 7,45	6	1. 2	5. 23. 5	6,2
Pollux	3. 22. 48. 8,7	55,15	7. 31. 12,58	3,676	95	61. 26. 18,0	+ 7,77	7	2	2. 13. 20	3,8
α Hydræ	4. 19. 4. 15,3	44,25	9. 16. 17,02	2,950	48	97. 40. 17,8	+15,14	3	2	6. 11. 56	9,7
Regulus	4. 29. 1. 28,3	47,99	9. 56. 5,89	3,199	99	76. 55. 3,2	+17,19	4	1	4. 25. 15	6,8
β Leonis	5. 24. 19. 41,1	46,58	11. 37. 18,74	3,105	58	74. 8. 34,3	+19,95	3	1. 2	4. 22. 39	9,0
β Virginis	5. 24. 40. 39,6	46,12	11. 38. 42,64	3,075	15	86. 56. 23,2	+19,96	3	3	5. 23. 25	7,9
Spica Virginis	6. 18. 16. 30,9	47,12	13. 13. 6,06	3,141	95	99. 57. 13,9	+19,04	17	1	6. 25. 2	7,6
Arcturus	7. 1. 17. 38,4	40,75	14. 5. 10,56	2,717	174	69. 36. 41,9	+19,15	20	1	5. 0. 55	12,4
α Libræ	7. 9. 32. 50,2	49,45	14. 38. 11,35	3,296	34	105. 4. 17,6	+15,46	7	2	7. 10. 35	6,2
α Coronæ-borealis	7. 21. 14. 18,3	37,89	15. 24. 57,22	2,526	66	62. 29. 55,9	+12,56	5	2. 3	5. 6. 59	14,8
α Serpentis	7. 23. 14. 17,1	44,00	15. 32. 57,14	2,933	61	82. 50. 11,0	+12,00	3	2	5. 21. 12	9,9
Antares	8. 3. 50. 5,8	54,75	16. 15. 20,39	3,650	59	115. 53. 59,9	+ 8,84	9	1	0. 0. 8	3,9
α Ophiuchi	8. 21. 3. 59,1	41,55	17. 24. 15,94	2,770	190	77. 15. 20,8	+ 3,12	5	2	5. 26. 37	11,8
α Lyræ	9. 7. 17. 15,4	30,16	18. 29. 9,03	2,011	66	51. 25. 7,6	— 2,54	19	1	6. 5. 5	17,6
γ, α, β Aquilæ	9. 23. 49. 51,1	42,76	19. 35. 19,41	2,851	92	79. 55. 54,8	— 8,10	3	3	6. 7. 21	10,8
	9. 24. 53. 22,6	43,96	19. 39. 33,51	2,931	184	81. 43. 27,0	— 8,44	26	1. 2	6. 6. 40	10,4
	9. 26. 0. 12,3	43,86	19. 44. 0,82	2,924	104	84. 9. 5,7	— 8,79	3	3. 4	6. 5. 16	9,5
1 α, 2 α Capricorni	10. 1. 13. 13,2	50,05	20. 4. 52,88	3,337	55	103. 12. 13,7	—10,39	4	4	5. 0. 10	4,8
	10. 1. 19. 7,8	50,05	20. 5. 16,52	3,336	137	103. 14. 30,8	—10,42	5	3	5. 0. 10	4,8
α Cygni	10. 8. 23. 55,3	30,58	20. 33. 35,69	2,039	40	45. 31. 56,3	— 2,46	14	1. 2	6. 28. 51	18,0
α Aquarii	10. 28. 29. 26,7	46,28	21. 53. 57,78	3,085	136	91. 25. 41,2	—17,09	3	3	5. 24. 25	7,6
Fomalhaut	11. 11. 13. 22,5	49,87	22. 44. 53,50	3,291	24	120. 50. 8,0	—18,98	8	1. 2	3. 21. 17	10,4
α Pegaſi	11. 13. 19. 46,5	44,59	22. 53. 19,10	2,973	135	76. 1. 39,9	—19,20	3	2	6. 27. 6	10,1
α Andromedæ	11. 29. 8. 6,3	45,85	23. 56. 32,42	3,057	142	62. 10. 50,1	—20,04	5	2	7. 22. 19	11,8

TABLE XI.

Corrections of the Right Aſcenſions of Thirty-one Principal Fixed Stars to every Tenth Day in the Year.

Day of the Month.	γ Pegaſi.	α Arietis.	α Ceti.	Aldebaran.	Capella.	Rigel.	β Tauri.	α Orionis.	Sirius.	Caſtor.	Procyon.	Pollux.	α Hydræ.	Regulus.	β Leonis.	β Virginis.
	′	″	″	″	″	″	″	″	″	″	″	″	″	′	″	″
January 0	— 2,9	+ 7,5	+11,3	+18,1	+26,6	+18,7	+21,6	+19,8	+21,1	+23,8	+20,0	+22,6	+16,1	+13,8	+ 5,8	+ 5,9
10	— 4,5	5,7	9,8	17,2	26,4	18,6	21,8	20,4	22,1	26,1	22,0	25,0	19,4	17,9	10,8	10,5
20	— 6,1	3,7	8,2	16,1	25,3	17,7	21,3	20,2	22,2	27,4	23,2	26,5	22,0	21,1	15,2	14,7
30	— 7,5	+ 1,6	6,2	14,5	23,3	16,4	20,1	19,4	21,7	27,9	23,7	27,1	23,9	23,8	19,1	18,4
Feb. 9	— 8,6	— 0,5	4,1	12,5	20,8	14,5	18,2	18,0	20,5	27,6	23,4	27,0	25,1	25,7	22,5	21,7
19	. . .	— 2,5	+ 2,0	10,3	17,7	12,2	15,8	16,1	18,8	26,5	22,6	26,2	25,6	26,9	25,1	24,3
March 1	. . .	— 4,2	— 0,1	7,8	14,2	9,8	13,2	13,9	16,5	24,7	21,1	24,6	25,5	27,5	27,2	26,3
11	. . .	— 5,7	. . .	5,3	10,5	7,2	10,4	11,4	14,0	22,4	19,2	22,5	24,7	27,3	28,6	27,7
21	. . .	. . .	. . .	2,9	6,9	4,6	7,6	8,9	11,2	19,7	17,0	20,0	23,4	26,7	29,3	28,4
31	. . .	. . .	. . .	+ 0,9	3,6	+ 2,1	5,0	6,4	8,5	17,0	14,6	17,4	21,7	25,5	29,5	28,7
Apr. 10	. . .	. . .	. . .	— 0,8	+ 0,7	0,0	2,7	4,1	5,9	14,1	12,2	14,7	19,8	24,0	29,2	28,4
20	. . .	. . .	. . .	— 2,0	— 1,5	— 1,7	. . .	2,2	3,4	11,4	10,0	12,1	17,8	22,3	28,5	27,8
30	. . .	. . .	. . .	— 2,5	— 2,9	— 2,8	. . .	+ 0,8	+ 1,3	9,0	7,9	9,8	15,7	20,3	27,4	26,9
May 10	. . .	. . .	. . .	— 2,3	— 3,6	— 3,5	. . .	— 0,1	— 0,4	7,0	6,2	7,8	13,6	18,4	26,1	25,8
20	+ 7,4	. . .	. . .	— 1,6	— 3,2	— 3,5	. . .	— 0,3	— 1,6	5,5	4,8	6,3	11,8	16,7	24,6	24,5
30	11,8	. . .	. . .	0,0	— 2,1	— 2,8	. . .	0,0	— 2,2	4,6	4,0	5,4	10,4	15,0	23,0	23,0
June 9	16,4	. . .	. . .	+ 2,3	+ 0,2	— 1,4	. . .	+ 0,9	— 2,2	4,3	3,6	5,0	8,7	13,6	21,5	21,6
19	21,1	+12,8	. . .	4,9	3,1	+ 0,6	. . .	2,6	— 1,7	4,7	3,8	5,3	. . .	12,4	20,0	20,1
29	25,9	17,5	+12,1	8,3	6,9	3,0	. . .	4,7	— 0,6	5,7	4,6	6,0	. . .	11,5	18,4	. . .
July 9	30,5	22,4	16,4	12,1	11,4	6,0	. . .	7,4	+ 1,1	7,3	5,7	7,4	. . .	11,0	17,1	. . .
19	35,0	27,3	20,9	16,2	16,3	9,4	. . .	10,5	3,4	9,7	7,6	9,6	. . .	10,8	15,9	. . .
29	39,0	32,3	25,5	20,5	21,7	13,0	. . .	14,0	6,0	12,5	9,8	12,0	. . .	10,9	. . .	. . .
Auguſt 8	42,7	37,0	30,0	25,0	27,5	17,1	+23,6	17,8	9,2	15,8	12,4	15,1	. . .	11,4	. . .	. . .
18	45,9	41,4	34,4	29,6	33,5	21,2	28,4	21,9	12,6	19,5	15,5	18,5	. . .	12,4	. . .	. . .
28	48,5	45,4	38,5	34,3	39,6	25,5	33,3	26,1	16,3	23,5	18,8	22,2	. . .	14,0	. . .	. . .
Sept. 7	50,5	49,1	42,4	38,7	45,8	29,7	38,3	30,4	20,2	28,0	22,4	26,3	. . .	15,8	. . .	. . .
17	51,9	52,4	46,1	43,2	51,9	34,0	43,3	34,8	24,5	32,7	26,3	30,8	. . .	18,1	. . .	. . .
27	52,8	55,1	49,3	47,4	57,9	38,2	48,2	39,2	28,8	37,6	30,4	35,5	. . .	20,9	. . .	. . .
Octob. 7	53,3	57,3	52,1	51,4	63,7	42,2	53,0	43,5	33,1	42,8	34,7	40,4	+23,6	24,1	. . .	. . .
17	53,2	59,1	54,5	55,1	69,1	46,0	57,4	47,7	37,4	48,1	39,2	45,4	27,5	27,8	. . .	. . .
27	52,6	60,3	56,4	58,5	74,3	49,6	61,7	51,7	41,7	53,4	43,7	50,5	31,7	31,9	+23,3	. . .
Novem. 6	51,8	61,1	57,9	61,4	79,0	52,8	65,6	55,5	45,9	58,6	47,1	55,7	36,2	36,3	26,8	. . .
16	50,6	61,4	59,0	64,0	83,1	55,6	69,2	59,0	49,8	63,9	52,5	60,7	40,8	41,0	30,9	+30,8
26	49,2	61,2	59,6	66,2	86,6	58,1	72,3	62,0	53,2	68,7	56,7	65,5	45,5	45,9	35,4	35,1
Decem. 6	47,7	60,7	59,8	67,7	89,4	59,9	75,0	64,7	56,4	73,2	60,6	70,0	50,1	50,8	40,3	39,8
16	46,0	59,6	59,4	68,6	91,3	61,2	76,9	66,8	58,9	77,2	64,0	74,0	54,5	55,7	45,3	44,6
26	44,3	58,4	58,7	69,1	92,4	62,0	78,1	68,2	60,8	80,6	66,9	77,4	58,6	60,2	50,2	49,6
31	43,4	57,5	58,3	69,1	92,7	62,0	78,4	68,7	61,5	82,0	68,1	78,9	60,5	62,3	52,5	52,0

TABLE XI. continued.

Day of the Month.	Spica Virg.	Arcturus.	α Libræ.	α Cor. Bor.	α Serpentis.	Antares.	α Ophiuchi.	α Lyræ.	α Aquilæ.	2d α Capric.	α Cygni.	α Aquarii.	Fomalhaut.	α Pegasi.	α Androm.
	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″
January 0	— 2,9	— 7,4	— 9,5	—14,5	—13,3	—17,2	. . .	—25,1	—19,1	. . .	—23,9	. . .	—10,9	— 8,7	— 3,5
10	+ 2,7	— 2,6	— 4,6	—10,1	— 9,0	—12,8	. . .	—23,3	—18,0	. . .	—24,6	. . .	—12,2	—10,0	— 5,5
20	7,5	+ 2,5	+ 0,3	— 5,4	— 4,6	— 8,0	—12,5	—20,7	—16,3	. . .	—24,6	. . .	—13,1	—11,0	— 7,4
30	12,0	7,3	5,2	— 0,6	0,0	— 3,0	— 8,7	—17,6	—14,2	. . .	—23,7	. . .	—13,7	. . .	— 8,9
Feb. 9	16,2	12,0	10,0	+ 4,4	+ 4,6	+ 2,0	— 4,6	—13,9	—11,5	. . .	—22,1	. . .	—13,8	. . .	—10,2
19	20,0	16,3	14,5	9,2	9,1	7,2	— 0,4	— 9,8	— 8,6	. . .	—19,7	. . .	—13,4	. . .	—11,0
March 1	23,2	20,2	18,7	13,8	13,5	12,1	+ 4,0	— 5,3	— 5,2	. . .	—16,6	. . .	—12,3	. . .	. . .
11	25,9	23,7	22,5	18,1	17,5	17,0	8,3	— 0,6	— 1,5	. . .	—13,0	. . .	—10,7	. . .	. . .
21	28,2	26,6	25,8	22,1	21,3	21,6	12,6	+ 4,4	+ 2,4	+ 2,0	— 8,7	. . .	— 8,7	. . .	. . .
31	29,8	28,9	28,8	25,5	24,7	25,9	16,8	9,4	6,4	6,1	— 4,1	. . .	— 6,0	. . .	. . .
April 10	30,9	30,7	31,2	28,4	27,7	29,9	20,9	14,3	10,7	10,5	+ 1,0	. . .	— 2,8	. . .	. . .
20	31,6	32,1	33,2	31,0	30,3	33,5	24,7	19,0	15,1	14,9	6,2	. . .	+ 0,9	. . .	. . .
30	32,0	32,9	34,9	33,1	32,5	36,8	28,2	23,6	19,5	19,6	11,7	. . .	5,2	. . .	. . .
May 10	31,9	33,3	36,1	34,5	34,3	39,5	31,4	27,8	23,8	24,1	17,2	. . .	9,8	. . .	. . .
20	31,5	33,3	36,8	35,6	35,6	41,9	34,2	31,5	27,9	28,7	22,5	. . .	14,7	. . .	. . .
30	30,9	32,9	37,2	36,0	36,5	43,6	36,6	34,8	31,8	33,0	27,4	. . .	19,8	+17,1	+11,7
June 9	30,0	32,1	37,1	36,0	36,9	45,0	38,4	37,4	35,3	37,0	32,1	. . .	25,0	21,9	16,6
19	28,8	31,0	36,7	35,5	36,9	45,8	39,7	39,4	38,4	40,6	36,2	+31,8	30,2	26,5	21,7
29	27,5	29,7	35,9	34,5	36,5	46,1	40,5	40,8	41,0	43,9	39,7	36,0	35,2	31,0	26,7
July 9	26,0	28,0	34,7	33,1	35,6	45,7	40,7	41,4	43,1	46,5	42,4	39,6	40,0	35,2	31,6
19	24,4	26,2	. . .	31,3	34,3	44,9	40,5	41,3	44,6	48,6	44,5	43,0	44,3	39,1	36,2
29	22,9	24,3	. . .	29,1	32,8	43,5	39,5	40,5	45,4	50,0	45,6	45,6	48,1	42,6	40,5
August 8	21,3	22,1	. . .	26,6	31,0	41,7	38,0	38,8	45,6	50,7	46,0	47,7	51,3	45,4	44,2
18	19,8	20,0	. . .	24,0	28,7	39,6	36,2	36,6	45,1	50,7	45,5	49,2	53,8	47,7	47,5
28	18,6	18,1	. . .	21,4	. . .	37,1	33,9	33,8	44,1	50,1	44,3	50,0	55,6	49,2	50,1
Sept. 7	17,4	16,3	. . .	18,7	. . .	34,5	31,4	30,5	42,5	48,9	42,1	50,3	56,6	50,2	52,1
17	16,9	14,8	. . .	. . .	. . .	32,1	28,7	26,9	40,6	47,3	39,6	49,9	57,0	50,6	53,6
27	16,7	13,7	. . .	. . .	. . .	29,7	26,1	23,1	38,3	45,3	36,5	49,0	56,7	50,5	54,3
October 7	17,1	13,1	. . .	. . .	. . .	27,7	23,6	19,3	35,9	43,0	32,9	47,6	55,9	49,8	54,6
17	18,2	13,2	. . .	. . .	. . .	26,2	21,4	15,6	33,3	40,6	29,1	46,0	54,5	48,7	54,4
27	19,9	14,0	. . .	. . .	. . .	25,2	19,4	12,2	30,9	38,3	25,2	44,2	52,7	47,4	53,6
Novem. 6	22,3	15,4	. . .	. . .	. . .	24,9	. . .	9,3	28,7	36,2	21,5	42,2	50,6	45,7	52,5
16	25,3	17,5	. . .	. . .	. . .	25,4	. . .	7,0	26,8	34,4	17,8	40,2	48,4	44,0	51,0
26	28,9	20,4	. . .	+12,4	. . .	26,7	. . .	5,2	25,4	32,8	14,5	38,4	46,1	42,1	49,3
Decem. 6	33,1	23,8	. . .	14,7	. . .	29,0	. . .	4,2	24,4	31,8	11,6	36,7	43,8	40,2	47,5
16	37,6	27,9	. . .	17,7	. . .	32,0	. . .	4,0	24,1	. . .	9,3	35,2	41,8	38,5	45,5
26	42,4	32,4	. . .	21,3	+28,8	35,6	. . .	4,5	24,2	. . .	7,5	33,7	40,0	36,9	43,6
31	45,0	34,8	+40,0	23,4	30,8	37,6	. . .	5,2	24,6	. . .	6,7	. . .	39,1	36,1	42,5

[7]

TABLE XII.

Corrections of the Right Aſcenſions of Thirty-one Principal Fixed Stars to every Tenth Degree of Longitude of the Moon's Aſcending Node.

Arg. Long. of ☽'s ☊	γ Pegaſi.	α Arietis.	α Ceti.	Aldebaran.	Capella.	Rigel.	β Tauri.	α Orionis.	Sirius.	Caſtor.	Procyon.	Pollux.	α Hydræ.	Regulus.	β Leonis.
S. D. S.	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
0. 0. 6	− 2,4+	− 3,4+	− 0,4+	− 1,1+	− 2,6+	+ 0,4−	− 1,1+	− 0,1+	− 0,4+	+ 2,0−	+ 0,4−	+ 2,0−	− 1,0+	+ 1,9−	+ 2,6−
10	5,2	6,5	3,3	4,3	6,6	− 2,3+	4,6	3,1	2,9	− 1,6+	− 2,6+	− 1,5+	3,7	− 1,1+	− 0,3+
20	7,8	9,3	6,1	7,3	10,4	4,9	7,9	6,0	5,3	5,1	5,5	4,9	6,3	4,1	3,2
1. 0. 7	10,2	11,9	8,7	10,1	13,9	7,4	11,0	8,7	7,5	8,5	8,2	8,3	8,7	7,0	6,0
10	12,3	14,1	11,0	12,6	17,0	9,5	13,8	11,2	9,5	11,7	10,7	11,3	10,9	9,6	8,7
20	14,1	15,8	13,0	14,7	19,6	11,5	16,1	13,3	11,2	14,5	12,8	14,0	12,7	12,0	11,0
2. 0. 8	15,4	17,1	14,6	16,3	21,6	13,1	18,0	15,0	12,6	16,8	14,6	16,3	14,1	14,0	13,1
10	16,2	17,9	15,8	17,5	22,9	14,3	19,3	16,3	13,6	18,7	15,9	18,1	15,1	15,5	14,7
20	16,5	18,1	16,5	18,1	23,5	15,0	20,0	17,1	14,2	20,0	16,7	19,3	15,7	16,6	15,9
3. 0. 9	16,4	17,8	16,6	18,2	23,4	15,4	20,1	17,3	14,3	20,6	17,6	20,0	15,8	17,2	16,6
10	15,7	16,9	16,3	17,8	22,6	15,2	19,6	17,0	14,0	20,7	16,8	20,0	15,4	17,3	16,8
20	14,6	15,5	15,5	16,7	21,1	14,5	18,5	16,2	13,3	20,1	16,1	19,4	14,5	16,8	16,5
4. 0. 10	13,0	13,7	14,2	15,2	19,0	13,5	16,9	14,9	12,2	18,9	14,9	18,3	13,2	15,9	15,7
10	11,0	11,4	12,5	13,2	16,3	12,0	14,7	13,2	10,7	17,1	13,3	16,6	11,4	14,4	14,4
20	8,7	8,8	10,4	10,9	13,1	10,1	12,1	11,0	8,9	14,8	11,2	14,4	9,4	12,5	12,7
5. 0. 11	6,1	5,9	8,0	8,1	9,5	8,0	9,1	8,6	6,8	12,1	8,8	11,7	7,0	10,3	10,5
10	3,4	− 2,8+	5,3	5,2	5,6	5,6	5,9	5,8	4,5	9,0	6,2	8,7	4,5	7,7	8,1
20	− 0,5+	+ 0,3−	− 2,5+	− 2,1+	− 1,5+	3,0	− 2,4+	− 2,9+	− 2,1+	5,6	3,3	5,4	− 1,8+	4,9	5,4
6. 0. 12	+ 2,4−	+ 3,4−	+ 0,4−	+ 1,1−	+ 2,6−	0,4	+ 1,1−	+ 0,1−	+ 0,4−	2,0	0,4	2,0	+ 1,0−	1,9	2,6

Arg. Long. of ☽'s ☊	♍ Virginis.	Spica Virginis.	Arcturus.	α Libræ.	α Coronæ borealis.	α Serpentis.	Antares.	α Ophiuchi.	α Lyræ.	α Aquilæ.	2d α Capricorni.	α Cygni.	α Aquarii.	Fomalhaut.	α Pegaſi.	α Andromedæ.
S. D. S.	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
0. 0. 6	+ 0,5−	− 1,6+	+ 3,0−	− 2,0+	+ 3,1−	+ 0,7−	− 2,0+	+ 0,3−	− 0,9+	− 0,6+	+ 1,2−	− 5,8+	+ 0,2−	+ 5,4−	− 2,3+	− 5,0+
10	− 2,3+	4,5	+ 0,4−	5,0	+ 0,7−	− 2,0+	5,4	− 2,2+	2,8	3,2	− 1,9+	7,6	− 2,6+	+ 2,3−	5,0	7,8
20	5,1	7,2	− 2,3+	7,9	− 1,7+	4,7	8,6	4,7	4,6	5,8	5,0	9,2	5,4	− 1,0+	7,5	10,3
1. 0. 7	7,8	9,8	4,9	10,5	4,9	7,2	11,5	7,1	6,2	8,2	7,9	10,5	8,1	4,2	9,9	12,5
10	10,2	12,0	7,3	12,8	6,3	9,5	14,1	9,2	7,6	10,4	10,6	11,5	10,4	7,3	11,9	14,3
20	12,2	13,9	9,5	14,7	8,3	11,5	16,2	11,1	8,9	12,2	12,9	12,1	12,5	10,1	13,6	15,7
2. 0. 8	14,0	15,3	11,5	16,2	10,1	13,2	17,9	12,6	9,8	13,7	14,8	12,4	14,2	12,7	14,9	16,6
10	15,3	16,3	13,1	17,2	11,6	14,5	19,0	13,8	10,4	14,7	16,3	12,2	15,4	14,8	15,7	17,0
20	16,1	16,8	14,3	17,7	12,8	15,3	19,5	14,5	10,8	15,3	17,3	11,7	16,2	16,5	16,0	16,9
3. 0. 9	16,4	16,8	15,0	17,6	13,5	15,7	19,5	14,8	10,8	15,4	17,8	10,9	16,5	17,8	15,9	16,3
10	16,3	16,2	15,3	17,0	13,8	15,6	18,8	14,6	10,4	15,1	17,7	9,7	16,3	18,4	15,2	15,2
20	15,6	15,2	15,1	15,9	13,7	15,0	17,6	14,0	9,8	14,3	17,1	8,3	15,6	18,5	14,1	13,6
4. 0. 10	14,5	13,7	14,5	14,2	13,2	13,9	15,8	13,0	8,8	13,1	16,0	6,5	14,4	18,1	12,6	11,6
10	12,9	11,8	13,5	12,2	12,3	12,4	13,6	11,5	7,6	11,4	14,4	4,6	12,8	17,1	10,7	9,3
20	11,0	9,6	12,0	9,8	11,1	10,6	10,9	9,8	6,2	9,5	12,3	2,6	10,8	15,6	8,5	6,6
5. 0. 11	8,7	7,0	10,1	7,1	9,5	8,5	8,0	7,7	4,6	7,2	9,9	− 0,4+	8,4	13,6	6,0	3,8
10	6,1	4,2	8,0	4,2	7,6	6,0	4,7	5,4	2,8	4,7	7,2	+ 1,7−	5,8	11,1	3,3	− 1,0+
20	3,3	− 1,4+	5,6	− 1,1+	5,4	3,4	− 1,4+	2,9	− 0,9+	− 2,1+	4,2	3,8	3,1	8,4	− 0,5+	+ 2,1−
6. 0. 12	0,5	+ 1,6−	3,0	+ 2,0−	3,1	0,7	+ 2,0−	0,3	+ 0,9−	+ 0,6−	1,2	5,8	0,2	5,4	+ 2,3−	+ 5,0−

TABLE XIII.

To find the Annual Preceſſion of a Star in Right Aſcenſion in Time.

Argum. Right Aſcenſ. of Star.

S	0 +	1 +	2 +	S
S	6 —	7 —	8 —	S
D	"	"	"	D
0	0,000	0,668	1,157	30
1	0,023	0,688	1,169	29
2	0,047	0,708	1,180	28
3	0,070	0,728	1,191	27
4	0,093	0,747	1,201	26
5	0,117	0,767	1,211	25
6	0,139	0,786	1,221	24
7	0,163	0,805	1,231	23
8	0,186	0,823	1,239	22
9	0,209	0,841	1,248	21
10	0,232	0,859	1,256	20
11	0,255	0,877	1,264	19
12	0,278	0,894	1,271	18
13	0,301	0,911	1,278	17
14	0,323	0,929	1,285	16
15	0,346	0,945	1,291	15
16	0,369	0,961	1,297	14
17	0,391	0,977	1,302	13
18	0,413	0,993	1,307	12
19	0,435	1,009	1,312	11
20	0,457	1,024	1,316	10
21	0,479	1,039	1,320	9
22	0,501	1,053	1,323	8
23	0,522	1,067	1,327	7
24	0,543	1,081	1,329	6
25	0,565	1,095	1,331	5
26	0,586	1,108	1,333	4
27	0,607	1,121	1,335	3
28	0,627	1,133	1,335	2
29	0,648	1,146	1,336	1
30	0,668	1,157	1,337	0
S	5 +	4 +	3 +	S
S	11 —	10 —	9 —	S

Multiply the Number taken out of this Table by the natural Tang. of the Star's Declination, and apply it, according to the Sign, to 3",068, gives the annual Preceſſion of Right Aſcenſion in Time of a Northern Star; but apply it with the Sign changed for a Southern Star.

TABLE XIV.

Equation of the Equinoxes in R. Aſcenſion in Time.

Common to all the Stars.

Argum. Long. of ☽'s ☊.

S	0 —	1 —	2 —	S
S	6 +	7 +	8 +	S
D	"	"	"	D
0	0,00	0,55	0,95	30
1	0,02	0,56	0,95	29
2	0,04	0,58	0,96	28
3	0,06	0,59	0,97	27
4	0,08	0,61	0,98	26
5	0,10	0,63	0,99	25
6	0,11	0,64	1,00	24
7	0,13	0,66	1,00	23
8	0,15	0,67	1,01	22
9	0,17	0,69	1,02	21
10	0,19	0,70	1,03	20
11	0,21	0,72	1,03	19
12	0,23	0,73	1,04	18
13	0,25	0,74	1,04	17
14	0,26	0,76	1,05	16
15	0,28	0,77	1,05	15
16	0,30	0,79	1,06	14
17	0,32	0,80	1,06	13
18	0,34	0,81	1,07	12
19	0,36	0,82	1,07	11
20	0,37	0,84	1,08	10
21	0,39	0,85	1,08	9
22	0,41	0,86	1,08	8
23	0,43	0,87	1,08	7
24	0,44	0,88	1,09	6
25	0,46	0,89	1,09	5
26	0,48	0,90	1,09	4
27	0,50	0,92	1,09	3
28	0,51	0,93	1,09	2
29	0,53	0,94	1,09	1
30	0,55	0,95	1,09	0
S	5 —	4 —	3 —	S
S	11 +	10 +	9 +	S

TABLE XV.

Greateſt Deviations of Stars in Right Aſcenſion in Time.

Enter the Table with the Right Aſcenſion of the Star at the Top or Bottom of the Page, and with its Declination on the Side.

Declination of Star.	Right Aſcenſion of Star.																													
	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D
D	0. 0	0. 5	0. 10	0. 15	0. 20	0. 25	1. 0	1. 5	1. 10	1. 15	1. 20	1. 25	2. 0	2. 5	2. 10	2. 15	2. 20	2. 25	3. 0											
	6. 0	6. 5	6. 10	6. 15	6. 20	6. 25	7. 0	7. 5	7. 10	7. 15	7. 20	7. 25	8. 0	8. 5	8. 10	8. 15	8. 20	8. 25	9. 0											
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"												
0	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00											
5	0,06	0,06	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,04	0,04	0,04	0,04	0,04	0,04											
10	0,11	0,11	0,11	0,11	0,11	0,11	0,10	0,10	0,10	0,10	0,10	0,09	0,09	0,09	0,09	0,09	0,08	0,08	0,08											
15	0,17	0,17	0,17	0,17	0,17	0,16	0,16	0,16	0,15	0,15	0,15	0,14	0,14	0,14	0,13	0,13	0,13	0,13	0,13											
20	0,23	0,23	0,23	0,23	0,23	0,22	0,22	0,21	0,21	0,20	0,20	0,19	0,19	0,18	0,18	0,18	0,17	0,17	0,17											
25	0,30	0,30	0,30	0,29	0,29	0,29	0,28	0,27	0,27	0,26	0,26	0,25	0,24	0,24	0,23	0,23	0,22	0,22	0,22											
30	0,37	0,37	0,37	0,36	0,36	0,35	0,35	0,34	0,33	0,32	0,32	0,31	0,30	0,29	0,29	0,28	0,28	0,27	0,27											
35	0,45	0,44	0,44	0,44	0,43	0,43	0,42	0,41	0,40	0,39	0,38	0,37	0,36	0,35	0,35	0,34	0,34	0,33	0,33											
40	0,53	0,53	0,53	0,53	0,52	0,51	0,50	0,49	0,48	0,47	0,46	0,45	0,44	0,43	0,42	0,41	0,40	0,40	0,40											
45	0,64	0,64	0,63	0,63	0,62	0,61	0,60	0,59	0,57	0,56	0,55	0,53	0,52	0,51	0,50	0,49	0,48	0,48	0,47											
50	0,76	0,76	0,75	0,75	0,74	0,73	0,72	0,70	0,69	0,67	0,65	0,64	0,62	0,60	0,59	0,58	0,57	0,57	8,56											
55	0,91	0,91	0,90	0,90	0,88	0,87	0,86	0,84	0,82	0,80	0,78	0,76	0,74	0,72	0,71	0,69	0,69	0,68	0,68											
60	1,10	1,10	1,10	1,09	1,07	1,06	1,04	1,02	1,00	0,98	0,95	0,92	0,90	0,88	0,86	0,84	0,83	0,82	,082											
65	1,36	1,36	1,35	1,35	1,33	1,31	1,29	1,26	1,23	1,20	1,17	1,14	1,11	1,09	1,06	1,04	1,03	1,02	1,02											
70	1,75	1,75	1,74	1,72	1,70	1,68	1,65	1,62	1,58	1,54	1,50	1,46	1,43	1,40	1,36	1,34	1,32	1,31	1,30											
	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D											
	12. 0	11.25	11.20	11.15	11.10	11. 5	11. 0	10.25	10.20	10.15	10.10	10. 5	10. 0	9. 25	9. 20	9. 15	9. 10	9. 5	9. 0											
	6. 0	5. 25	5. 20	5. 15	5. 10	5. 5	5. 0	4. 25	4. 20	4. 15	4. 10	4. 5	4. 0	3. 25	3. 20	3. 15	3. 10	3. 5	3. 0											
	Right Aſcenſion of Star.																													

If the Declination of the Star does not exceed 70°, take the Maximum of Deviation out of this Table; but if the Declination of the Star is greater, find the Maximum by multiplying the Number in this Table anſwering to the Right Aſcenſion of the Star, and the Declination 45° by the natural Tangent of the Star's Declination, or elſe find it by taking $\frac{1}{11}$th of the Number deduced from Table VI. Multiply the Maximum ſo found by the natural Co-ſine of the Argument of Deviation found by the Help of Table VI.; the Product is the Deviation; which will be ſubtractive for a Northern Star, and additive for a Southern Star, if the Argument of Deviation is leſs than Three Signs; but will be additive for a Northern Star, and ſubtractive for a Southern Star, if the Argument is greater than Three Signs.

TABLE XVI.

Greateſt Aberrations of Stars in Right Aſcenſion in Time.

The Argument at Top, is the Declination of the Star to every Three Degrees.

The Argument on the Sides, is the Right Aſcenſion of the Star to every Three Degrees.

Right Aſc. of Star.	Declination of Star.																								Right Aſc. of Star.
S. D. S.	D. 0	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	S. D. S.
	Log.	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	
0 0 VI	0.0874	1,22	1,23	1,23	1,24	1,25	1,26	1,28	1,31	1,34	1,37	1,41	1,46	1,51	1,57	1,65	1,73	1,83	1,95	2,08	2,25	2,45	2,69	3,01	V 30 XI
3	0.0875	1,22	1,23	1,23	1,24	1,25	1,26	1,28	1,31	1,34	1,37	1,41	1,46	1,51	1,57	1,65	1,73	1,83	1,95	2,08	2,25	2,45	2,69	3,01	27
6	0.0878	1,23	1,23	1,23	1,24	1,25	1,26	1,28	1,31	1,34	1,37	1,41	1,46	1,51	1,57	1,65	1,73	1,83	1,95	2,08	2,25	2,45	2,70	3,01	24
9	0.0884	1,23	1,23	1,23	1,24	1,25	1,26	1,28	1,31	1,34	1,37	1,41	1,46	1,51	1,58	1,65	1,73	1,83	1,95	2,09	2,25	2,45	2,70	3,01	21
12	0.0891	1,23	1,23	1,23	1,24	1,25	1,27	1,29	1,31	1,35	1,38	1,42	1,47	1,52	1,58	1,65	1,74	1,83	1,95	2,09	2,25	2,45	2,71	3,02	18
15	0.0902	1,23	1,23	1,24	1,24	1,26	1,27	1,29	1,32	1,35	1,38	1,42	1,47	1,52	1,59	1,65	1,74	1,84	1,95	2,09	2,26	2,46	2,71	3,03	15
18	0.0913	1,23	1,23	1,24	1,24	1,26	1,27	1,30	1,32	1,35	1,39	1,43	1,47	1,53	1,59	1,66	1,75	1,85	1,96	2,10	2,27	2,47	2,72	3,03	12
21	0.0926	1,24	1,24	1,24	1,25	1,26	1,27	1,30	1,32	1,35	1,39	1,43	1,47	1,53	1,59	1,67	1,75	1,85	1,97	2,11	2,27	2,47	2,72	3,04	9
24	0.0941	1,24	1,24	1,24	1,26	1,26	1,28	1,30	1,33	1,36	1,39	1,43	1,48	1,53	1,60	1,67	1,76	1,85	1,97	2,11	2,28	2,49	2,73	3,05	6
27	0.0957	1,24	1,24	1,25	1,26	1,27	1,29	1,31	1,33	1,37	1,40	1,44	1,49	1,54	1,61	1,68	1,77	1,87	1,98	2,12	2,29	2,49	2,75	3,07	3
1 0 VII	0.0974	1,25	1,25	1,26	1,26	1,27	1,29	1,31	1,34	1,37	1,41	1,45	1,49	1,55	1,61	1,69	1,77	1,87	1,99	2,13	2,30	2,50	2,75	3,08	V 0 XI
3	0.0992	1,26	1,26	1,26	1,27	1,28	1,30	1,32	1,35	1,37	1,41	1,45	1,50	1,55	1,62	1,69	1,78	1,88	2,00	2,14	2,31	2,51	2,77	3,09	IV 27 X
6	0.1011	1,26	1,26	1,27	1,27	1,29	1,30	1,32	1,35	1,38	1,41	1,46	1,51	1,56	1,63	1,70	1,79	1,89	2,01	2,15	2,32	2,53	2,78	3,10	24
9	0.1031	1,26	1,26	1,27	1,28	1,29	1,31	1,33	1,36	1,39	1,42	1,47	1,51	1,57	1,63	1,71	1,79	1,89	2,01	2,16	2,33	2,53	2,79	3,12	21
12	0.1050	1,27	1,27	1,27	1,28	1,30	1,32	1,34	1,37	1,39	1,43	1,47	1,52	1,57	1,64	1,71	1,80	1,91	2,03	2,17	2,34	2,55	2,81	3,13	18
15	0.1070	1,27	1,27	1,28	1,29	1,30	1,32	1,35	1,37	1,40	1,43	1,48	1,53	1,58	1,65	1,72	1,81	1,91	2,03	2,18	2,35	2,56	2,82	3,14	15
18	0.1089	1,28	1,28	1,29	1,30	1,31	1,33	1,35	1,37	1,41	1,44	1,49	1,53	1,59	1,65	1,73	1,82	1,92	2,04	2,19	2,36	2,57	2,83	3,16	12
21	0.1108	1,29	1,29	1,30	1,30	1,32	1,33	1,36	1,38	1,41	1,45	1,49	1,54	1,59	1,66	1,74	1,83	1,93	2,05	2,20	2,37	2,58	2,84	3,17	9
24	0.1127	1,29	1,30	1,30	1,31	1,32	1,34	1,36	1,39	1,42	1,45	1,50	1,55	1,60	1,67	1,75	1,83	1,94	2,06	2,21	2,38	2,59	2,85	3,19	6
27	0.1144	1,30	1,30	1,30	1,32	1,33	1,35	1,37	1,39	1,43	1,46	1,50	1,55	1,61	1,67	1,75	1,84	1,95	2,07	2,21	2,39	2,60	2,87	3,20	3
II 0 VIII	0.1161	1,30	1,30	1,31	1,32	1,33	1,35	1,37	1,40	1,43	1,47	1,51	1,56	1,61	1,68	1,76	1,85	1,95	2,07	2,23	2,40	2,61	2,88	3,21	IV 0 X
3	0.1177	1,31	1,31	1,32	1,32	1,34	1,36	1,38	1,41	1,43	1,47	1,51	1,57	1,62	1,69	1,77	1,85	1,96	2,09	2,23	2,41	2,62	2,89	3,23	III 27 IX
6	0.1191	1,31	1,32	1,32	1,33	1,35	1,36	1,38	1,41	1,44	1,47	1,52	1,57	1,63	1,69	1,77	1,86	1,97	2,09	2,24	2,41	2,63	2,90	3,24	24
9	0.1204	1,32	1,32	1,32	1,33	1,35	1,37	1,39	1,41	1,45	1,48	1,53	1,57	1,63	1,70	1,77	1,87	1,97	2,10	2,25	2,43	2,64	2,91	3,25	21
12	0.1216	1,32	1,32	1,33	1,34	1,35	1,37	1,39	1,42	1,45	1,49	1,53	1,58	1,63	1,70	1,78	1,87	1,98	2,10	2,25	2,43	2,65	2,91	3,25	18
15	0.1226	1,32	1,32	1,33	1,34	1,35	1,37	1,39	1,42	1,45	1,49	1,53	1,58	1,64	1,71	1,79	1,87	1,98	2,11	2,26	2,43	2,65	2,92	3,26	15
18	0.1234	1,32	1,33	1,33	1,35	1,36	1,37	1,40	1,43	1,45	1,49	1,53	1,59	1,64	1,71	1,79	1,88	1,99	2,11	2,26	2,44	2,66	2,93	3,27	12
21	0.1242	1,33	1,33	1,34	1,35	1,36	1,38	1,40	1,43	1,46	1,49	1,54	1,59	1,65	1,71	1,79	1,88	1,99	2,11	2,27	2,45	2,66	2,93	3,27	9
24	0.1246	1,33	1,33	1,34	1,35	1,36	1,38	1,40	1,43	1,46	1,49	1,54	1,59	1,65	1,71	1,79	1,89	1,99	2,12	2,27	2,45	2,67	2,93	3,27	6
27	0.1248	1,33	1,33	1,34	1,35	1,36	1,38	1,40	1,43	1,46	1,49	1,54	1,59	1,65	1,71	1,79	1,89	1,99	2,12	2,27	2,45	2,67	2,93	3,28	3
30	0.1249	1,33	1,33	1,34	1,35	1,36	1,38	1,40	1,43	1,46	1,49	1,54	1,59	1,65	1,71	1,79	1,89	1,99	2,12	2,27	2,45	2,67	2,94	3,28	III 0 IX

With the Right Aſcenſion of the Star and its Declination (if leſs than 66 Degrees) take its greateſt Aberration in Right Aſcenſion out of this Table, and multiply it by the natural Coſine of the Annual Argument of Aberration found by Table VIII. and you will have the Aberration in Right Aſcenſion in Time; to be ſubtracted from the Star's Right Aſcenſion in Time, if the Annual Argument is leſs than 3 Signs; and to be added to the ſame, if the Annual Argument is greater than 3 Signs.

N. B. But if the Declination of the Star exceed 66 Degrees, take the Logarithm anſwering to the Right Aſcenſion of the Star out of the Second Column of this Table, which added to the Log. Coſine of the Annual Argument, and the Log. Secant of the Star's Declination (20 being rejected from the Index) gives the Logarithm of the Aberration in Right Aſcenſion in Time in Seconds, to be ſubtracted from or added to the Right Aſcenſion of the Star, according as the Annual Argument is leſs or more than 3 Signs.

TABLE XVII.

Corrections of the Right Aſcenſions in Time of Thirty-one Principal Fixed Stars to every Tenth Day in the Year.

Day of the Month.	γ Pegaſi.	α Arietis.	α Ceti.	Aldebaran.	Capella.	Rigel.	β Tauri.	α Orionis.	Sirius.	Caſtor.	Procyon.	Pollux.	α Hydræ.	Regulus.	β Leonis.	β Virginis.
	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
January 0	—0,19	+0,50	+0,75	+1,21	+1,77	+1,25	+1,44	+1,32	+1,41	+1,59	+1,33	+1,51	+1,07	+0,92	+0,39	+0,39
10	—0,30	+0,38	0,65	1,15	1,76	1,24	1,45	1,36	1,47	1,74	1,47	1,67	1,29	1,19	0,72	0,70
20	—0,41	+0,25	0,55	1,07	1,69	1,18	1,42	1,35	1,48	1,83	1,55	1,77	1,47	1,41	1,01	0,98
30	—0,50	+0,11	0,41	0,97	1,55	1,09	1,34	1,29	1,45	1,86	1,58	1,81	1,59	1,59	1,27	1,23
Feb. 9	—0,57	—0,03	0,27	0,83	1,39	0,97	1,21	1,20	1,37	1,84	1,55	1,79	1,64	1,71	1,50	1,45
19	. . .	—0,17	+0,13	0,69	1,18	0,81	1,05	1,07	1,24	1,77	1,50	1,74	1,71	1,79	1,64	1,62
March 1	. . .	—0,28	—0,01	0,52	0,95	0,65	0,88	0,93	1,09	1,65	1,40	1,63	1,70	1,83	1,81	1,75
11	. . .	—0,38	. . .	0,35	0,70	0,48	0,69	0,76	0,92	1,49	1,27	1,49	1,65	1,82	1,91	1,85
21	. . .	. . .	. . .	0,19	0,46	0,31	0,51	0,59	0,74	1,31	1,12	1,32	1,56	1,77	1,95	1,89
31	. . .	. . .	. . .	+0,06	0,24	+0,14	0,33	0,43	0,56	1,13	0,96	1,15	1,45	1,69	1,97	1,91
Apr. 10	. . .	. . .	. . .	—0,05	+0,04	0,00	0,18	0,27	0,38	0,93	0,80	0,96	1,32	1,59	1,95	1,89
20	. . .	. . .	. . .	—0,13	—0,09	—0,11	. . .	0,15	0,22	0,75	0,65	0,79	1,19	1,48	1,90	1,85
30	. . .	. . .	. . .	—0,17	—0,18	—0,19	. . .	+0,05	+0,08	0,59	0,51	0,63	1,05	1,34	1,83	1,79
May 10	. . .	. . .	. . .	—0,15	—0,23	—0,24	. . .	—0,01	—0,04	0,46	0,39	0,50	0,91	1,22	1,74	1,72
20	+0,49	. . .	. . .	—0,11	—0,20	—0,24	. . .	—0,02	—0,13	0,36	0,30	0,40	0,79	1,10	1,64	1,67
30	0,79	. . .	. . .	0,00	—0,13	—0,19	. . .	0,00	—0,17	0,30	0,25	0,33	0,69	0,99	1,53	1,53
June 9	1,09	. . .	. . .	+0,15	0,00	—0,09	. . .	+0,06	—0,17	0,28	0,22	0,30	0,58	0,90	1,43	1,44
19	1,41	+0,85	. . .	0,33	+0,20	+0,04	. . .	0,17	—0,13	0,30	0,23	0,32	. . .	0,82	1,33	1,34
29	1,73	1,17	+0,81	0,55	0,45	0,20	. . .	0,31	—0,06	0,37	0,28	0,37	. . .	0,76	1,23	. . .
July 9	2,03	1,49	1,09	0,81	0,75	0,40	. . .	0,49	+0,05	0,48	0,35	0,46	. . .	0,72	1,14	. . .
19	2,33	1,82	1,39	1,08	1,08	0,63	. . .	0,70	0,21	0,64	0,48	0,61	. . .	0,71	1,06	. . .
29	2,60	2,15	1,70	1,37	1,44	0,87	. . .	0,93	0,38	0,82	0,62	0,76	. . .	0,71	. . .	. . .
Auguſt 8	2,85	2,47	2,00	1,67	1,82	1,14	+1,57	1,19	0,58	1,04	0,80	0,97	. . .	0,74	. . .	. . .
18	3,06	2,76	2,29	1,97	2,22	1,41	1,89	1,46	0,81	1,29	1,00	1,19	. . .	0,81	. . .	. . .
28	3,23	3,03	2,57	2,29	2,63	1,70	2,22	1,74	1,06	1,56	1,22	1,44	. . .	0,91	. . .	. . .
Sept. 7	3,37	3,27	2,83	2,58	3,04	1,98	2,55	2,03	1,32	1,86	1,45	1,71	. . .	1,03	. . .	. . .
17	3,46	3,49	3,07	2,88	3,44	2,27	2,89	2,32	1,60	2,17	1,71	2,01	. . .	1,19	. . .	. . .
27	3,52	3,67	3,29	3,16	3,84	2,55	3,21	2,61	1,89	2,50	1,99	2,32	. . .	1,37	. . .	. . .
Octob. 7	3,55	3,82	3,47	3,43	4,23	2,81	3,53	2,90	2,18	2,84	2,27	2,64	+1,57	1,59	. . .	. . .
17	3,55	3,94	3,63	3,67	4,59	3,07	3,83	3,18	2,46	3,19	2,57	2,98	1,83	1,83	. . .	. . .
27	3,51	4,02	3,76	3,90	4,93	3,31	4,11	3,45	2,75	3,54	2,87	3,32	2,11	2,11	+1,55	. . .
Novem. 6	3,45	4,07	3,86	4,09	5,31	3,52	4,37	3,70	3,02	3,89	3,10	3,66	2,41	2,40	1,79	. . .
16	3,37	4,09	3,93	4,27	5,52	3,71	4,61	3,93	3,28	4,24	3,45	4,00	2,72	2,71	2,06	+2,05
26	3,28	4,08	3,97	4,41	5,75	3,87	4,82	4,13	3,51	4,56	3,73	4,31	3,03	3,04	2,36	2,34
Decem. 6	3,18	4,05	3,99	4,51	5,94	3,99	5,00	4,31	3,72	4,86	3,99	4,61	3,34	3,37	2,65	2,65
16	3,07	3,97	3,96	4,57	6,07	4,08	5,13	4,45	3,88	5,13	4,22	4,87	3,63	3,68	3,02	2,97
26	2,95	3,89	3,91	4,61	6,14	4,13	5,21	4,55	4,01	5,35	4,41	5,10	3,91	3,98	3,35	3,31
31	2,89	3,83	3,89	4,61	6,16	4,13	5,23	4,58	4,06	5,45	4,49	5,20	4,03	4,12	3,50	3,47

TABLE XVII. continued.

Day of the Month.	Spica Virg.	Arcturus.	α Libræ.	α Cor. Bor.	α Serpentis.	Antares.	α Ophiuchi.	α Lyræ.	α Aquilæ.	2d α Capric.	α Cygni.	α Aquarii	Fomalhaut.	α Pegasi.	α Androm.
	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
January 0	—0,19	—0,49	—0,63	—0,97	—0,88	—1,15	. . .	—1,67	—1,27	. . .	—1,59	. . .	—0,73	—0,58	—0,23
10	+0,18	—0,17	—0,31	—0,67	—0,60	—0,85	. . .	—1,55	—1,20	. . .	—1,64	. . .	—0,81	—0,67	—0,37
20	0,50	+0,17	+0,02	—0,36	—0,31	—0,53	—0,83	—1,38	—1,09	. . .	—1,64	. . .	—0,87	—0,73	—0,49
30	0,80	0,48	0,35	—0,04	0,00	—0,20	—0,58	—1,17	—0,95	. . .	—1,58	. . .	—0,91	. . .	—0,59
Feb. 9	1,08	0,79	0,67	+0,29	+0,31	+0,13	—0,31	—0,93	—0,77	. . .	—1,47	. . .	—0,92	. . .	—0,68
19	1,33	1,08	0,97	0,31	0,61	0,48	—0,03	—0,65	—0,57	. . .	—1,31	. . .	—0,89	. . .	—0,73
March 1	1,55	1,34	1,25	0,92	0,90	0,81	+0,27	—0,35	—0,36	. . .	—1,11	. . .	—0,82	. . .	. . .
11	1,73	1,56	1,50	1,21	1,17	1,13	0,55	—0,04	—0,11	. . .	—0,87	. . .	—0,71	. . .	. . .
21	1,88	1,75	1,72	1,47	1,42	1,44	0,84	+0,29	+0,17	+0,13	—0,58	. . .	—0,58	. . .	. . .
31	1,99	1,91	1,92	1,70	1,65	1,73	1,12	0,63	0,44	0,41	—0,27	. . .	—0,40	. . .	. . .
April 10	2,06	2,03	2,08	1,89	1,85	1,99	1,39	0,95	0,72	0,70	+0,07	. . .	—0,19	. . .	. . .
20	2,11	2,11	2,21	2,07	2,02	2,23	1,65	1,27	1,02	0,99	0,41	. . .	+0,06	. . .	. . .
30	2,13	2,16	2,33	2,21	2,17	2,45	1,88	1,57	1,31	1,31	0,78	. . .	0,35	. . .	. . .
May 10	2,13	2,19	2,41	2,30	2,29	2,63	2,09	1,85	1,60	1,61	1,15	. . .	0,65	. . .	. . .
20	2,10	2,18	2,45	2,37	2,37	2,79	2,28	2,10	1,87	1,91	1,50	. . .	0,98	. . .	. . .
30	2,06	2,15	2,48	2,40	2,43	2,91	2,44	2,32	2,13	2,20	1,83	. . .	1,32	+1,14	+0,78
June 9	2,00	2,10	2,47	2,40	2,46	3,00	2,56	2,49	2,37	2,47	2,14	. . .	1,67	1,46	1,11
19	1,92	2,03	2,45	2,37	2,46	3,05	2,65	2,63	2,58	2,71	2,41	+2,12	2,01	1,70	1,45
29	1,83	1,93	2,39	2,30	2,43	3,07	2,70	2,72	2,75	2,93	2,65	2,40	2,35	2,07	1,78
July 9	1,73	1,82	2,31	2,21	2,37	3,05	2,71	2,76	2,89	3,10	2,83	2,64	2,67	2,35	2,11
19	1,63	1,70	. . .	2,09	2,29	2,99	2,70	2,75	2,99	3,24	2,97	2,87	2,95	2,61	2,41
29	1,53	1,57	. . .	1,94	2,19	2,90	2,63	2,70	3,05	3,33	3,04	3,04	3,21	2,84	2,70
August 8	1,42	1,41	. . .	1,77	2,07	2,78	2,53	2,59	3,06	3,38	3,07	3,18	3,42	3,03	2,95
18	1,32	1,27	. . .	1,60	1,91	2,64	2,41	2,44	3,03	3,38	3,03	3,28	3,59	3,18	3,17
28	1,24	1,15	. . .	1,42	. . .	2,47	2,26	2,25	2,96	3,34	2,95	3,33	3,71	3,28	3,34
Sept. 7	1,16	1,03	. . .	1,24	. . .	2,30	2,09	2,03	2,85	3,26	2,81	3,35	3,77	3,35	3,47
17	1,13	0,91	. . .	. . .	. . .	2,14	1,91	1,79	2,74	3,15	2,64	3,33	3,80	3,37	3,57
27	1,11	0,84	. . .	. . .	. . .	1,98	1,74	1,54	2,58	3,02	2,43	3,27	3,78	3,37	3,62
October 7	1,14	0,80	. . .	. . .	. . .	1,85	1,57	1,29	2,42	2,87	2,19	3,17	3,73	3,32	3,64
17	1,21	0,80	. . .	. . .	. . .	1,75	1,43	1,04	2,25	2,71	1,94	3,07	3,63	3,25	3,63
27	1,33	0,85	. . .	. . .	. . .	1,65	1,39	0,81	2,09	2,55	1,68	2,95	3,51	3,16	3,57
Novem. 6	1,42	0,95	. . .	. . .	. . .	1,66	. . .	0,62	1,94	2,41	1,43	2,81	3,37	3,05	3,50
16	1,65	1,09	. . .	. . .	. . .	1,69	. . .	0,47	1,82	2,29	1,19	2,68	3,23	2,93	3,40
26	1,93	1,27	. . .	. . .	. . .	1,78	. . .	0,35	1,72	2,19	0,97	2,56	3,07	2,81	3,29
Decem. 6	2,21	1,50	. . .	. . .	. . .	1,93	. . .	0,28	1,66	2,12	0,78	2,45	2,92	2,65	3,17
16	2,51	1,77	. . .	+1,18	. . .	2,13	. . .	0,27	1,65	. . .	0,62	2,35	2,72	2,57	3,03
26	2,83	2,07	. . .	1,42	+1,92	2,37	. . .	0,30	1,65	. . .	0,50	2,25	2,67	2,46	2,91
31	3,00	2,22	+2,67	1,56	+2,05	2,51	. . .	0,35	1,68	. . .	0,45	. . .	2,61	2,41	2,83

N. B. An Allowance is made for the proper Motions of Capella, Sirius, Caſtor, Procyon, Pollux, Regulus, Arcturus, and α Aquilæ.

TABLE XVIII.

Corrections of the Right Aſcenſions in Time of Thirty-one Principal Fixed Stars to every Tenth Degree of Longitude of the Moon's Aſcending Node.

Arg. Long. of ☽'s ☊	γ Pegaſi.	α Arietis.	α Ceti.	Aldebaran.	Capella.	Rigel.	β Tauri.	α Orionis.	Sirius.	Caſtor.	Procyon.	Pollux.	α Hydræ.	Regulus.	β Leonis.
S. D. S.	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
0. 0. 6	−0,16+	−0,23+	−0,03+	−0,07+	−0,17+	+0,03−	−0,07+	−0,01+	−0,03+	+0,13−	+0,03−	+0,13−	−0,07+	+0,13−	+0,17−
10	0,35	0,43	0,22	0,29	0,44	−0,15+	0,31	0,21	0,19	−0,11+	−0,17+	−0,10+	0,25	−0,07+	−0,02+
20	0,52	0,62	0,41	0,49	0,69	0,33	0,53	0,40	0,35	0,34	0,37	0,33	0,42	0,27	0,21
1. 0. 7	0,68	0,79	0,58	0,67	0,93	0,49	0,73	0,58	0,50	0,57	0,55	0,55	0,58	0,47	0,40
10	0,82	0,94	0,73	0,84	1,13	0,63	0,92	0,75	0,63	0,78	0,71	0,75	0,73	0,64	0,58
20	0,94	1,05	0,87	0,98	1,31	0,77	1,07	0,89	0,75	0,97	0,85	0,93	0,85	0,80	0,73
2. 0. 8	1,03	1,14	0,97	1,09	1,44	0,87	1,20	1,00	0,84	1,12	0,97	1,09	0,94	0,93	0,87
10	1,08	1,19	1,05	1,17	1,53	0,95	1,29	1,09	0,91	1,25	1,06	1,21	1,01	1,03	0,98
20	1,10	1,21	1,10	1,21	1,57	1,00	1,33	1,14	0,95	1,33	1,11	1,29	1,05	1,11	1,06
3. 0. 9	1,09	1,19	1,11	1,21	1,56	1,03	1,34	1,15	0,95	1,37	1,13	1,33	1,05	1,15	1,11
10	1,05	1,13	1,09	1,19	1,51	1,01	1,31	1,13	0,93	1,38	1,12	1,33	1,03	1,15	1,12
20	0,97	1,03	1,03	1,11	1,41	0,97	1,23	1,08	0,89	1,34	1,07	1,29	0,97	1,12	1,10
4. 0. 10	0,87	0,91	0,95	1,01	1,27	0,90	1,13	0,99	0,81	1,26	0,99	1,22	0,88	1,06	1,05
10	0,73	0,76	0,83	0,88	1,09	0,80	0,98	0,88	0,71	1,14	0,89	1,11	0,76	0,96	0,96
20	0,58	0,59	0,69	0,73	0,87	0,67	0,81	0,73	0,59	0,99	0,75	0,96	0,63	0,83	0,85
5. 0. 11	0,41	0,39	0,53	0,54	0,63	0,53	0,61	0,57	0,45	0,81	0,59	0,78	0,47	0,69	0,70
10	0,23	−0,19+	0,35	0,35	0,37	0,37	0,39	0,39	0,30	0,60	0,41	0,58	0,30	0,51	0,54
20	−0,03+	+0,02−	−0,17+	−0,14+	−0,10+	0,20	−0,16+	−0,19+	−0,14+	0,37	0,22	0,36	−0,12+	0,33	0,36
6. 0. 12	+0,16−	+0,23−	+0,03−	+0,07−	+0,17−	0,03	+0,07−	+0,01−	+0,03−	0,13	0,03	0,13	+0,07−	0,13	0,17

Arg. Long. of ☽'s ☊	3 Virginis.	Spica Virginis.	Arcturus.	α Libræ.	α Coronæ borealis.	α Serpentis.	Antares.	α Ophiuchi.	α Lyræ.	α Aquilæ.	2d α Capricorni.	α Cygni.	2 Aquarii.	Fomalhaut.	α Pegaſi.	α Andromedæ.
S. D. S.	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
0. 0. 6	+0,03−	−0,11+	+0,20−	−0,13+	+0,21−	+0,05−	−0,13+	+0,02−	−0,06+	−0,04+	+0,08−	−0,39+	+0,01−	+0,36−	−0,15+	−0,33+
10	−0,15+	0,30	+0,03−	0,33	+0,05−	−0,13+	0,36	−0,15+	0,19	0,21	−0,13+	0,51	−0,17+	+0,15−	0,33	0,52
20	0,34	0,48	−0,15+	0,53	−0,11+	0,31	0,57	0,31	0,31	0,39	0,33	0,61	0,36	−0,07+	0,50	0,69
1. 0. 7	0,52	0,65	0,33	0,70	0,27	0,48	0,77	0,47	0,41	0,55	0,53	0,70	0,54	0,28	0,66	0,83
10	0,68	0,80	0,49	0,85	0,42	0,63	0,94	0,61	0,51	0,69	0,71	0,77	0,69	0,49	0,79	0,95
20	0,81	0,93	0,63	0,98	0,55	0,77	1,08	0,74	0,59	0,81	0,86	0,81	0,83	0,67	0,91	1,05
2. 0. 8	0,93	1,02	0,77	1,08	0,67	0,88	1,19	0,84	0,65	0,91	0,99	0,83	0,95	0,85	0,99	1,11
10	1,02	1,09	0,87	1,15	0,77	0,97	1,27	0,92	0,69	0,98	1,09	0,81	1,03	0,99	1,05	1,13
20	1,07	1,12	0,95	1,18	0,85	1,02	1,30	0,97	0,72	1,02	1,15	0,78	1,08	1,10	1,07	1,13
3. 0. 9	1,09	1,12	1,00	1,17	0,90	1,05	1,30	0,99	0,72	1,03	1,19	0,73	1,10	1,19	1,06	1,09
10	1,09	1,08	1,02	1,13	0,92	1,04	1,25	0,98	0,69	1,01	1,18	0,65	1,09	1,23	1,01	1,01
20	1,04	1,01	1,01	1,06	0,91	1,00	1,17	0,93	0,65	0,95	1,14	0,55	1,04	1,23	0,94	0,91
4. 0. 10	0,97	0,91	0,97	0,95	0,88	0,93	1,05	0,87	0,59	0,87	1,07	0,43	0,96	1,21	0,84	0,77
10	0,86	0,79	0,90	0,81	0,82	0,83	0,91	0,77	0,51	0,76	0,96	0,31	0,85	1,14	0,71	0,62
20	0,73	0,64	0,80	0,65	0,74	0,71	0,71	0,65	0,41	0,63	0,82	0,17	0,72	1,04	0,57	0,44
5. 0. 11	0,58	0,47	0,67	0,47	0,63	0,57	0,53	0,51	0,31	0,48	0,66	−0,03+	0,56	0,91	0,40	0,25
10	0,41	0,28	0,53	0,28	0,51	0,40	0,31	0,36	0,19	0,31	0,48	+0,11−	0,39	0,74	0,22	−0,07+
20	0,22	−0,09+	0,37	−0,07+	0,36	0,23	−0,09+	0,19	−0,06+	−0,14+	0,28	0,25	0,21	0,56	−0,03+	+0,14−
6. 0. 12	0,03	+0,11−	0,20	+0,13−	0,21	0,05	+0,13−	0,02	+0,06−	+0,04−	0,08	0,39	0,01	0,36	+0,15−	+0,33−

TABLE XIX.

Epochs of the Sun's mean right Aſcenſion in Time.

Jul. Style	H. M. S.	Greg Style	H. M. S.	Greg Style	H. M. S.
1723	19.21.36,71	1752	18.42. 5,83	1782	18.41. 3,21
1724	19.24.35,99	1753	18.41. 8. 55	1783	18.40. 5,93
1725	19.23.38,71	1754	18.40.11,27	1784	18.43. 5,20
1726	19.22.41,42	1755	18.39.13,98	1785	18.42. 7,92
1727	19.21.44,14	1756	18.42.13,25	1786	18.41.10,63
1728	19.24.43,41	1757	18.41.15,97	1787	18.40.13,35
1729	19.23.46,13	1758	18.40.18,69	1788	18.43.12,62
1730	19.22.48,84	1759	18.39.21,40	1789	18.42.15,34
1731	19.21.51,56	1760	18.42.20,67	1790	18.41.18,05
1732	19.24.50,83	1761	18.41.23,39	1791	18.40.20,77
1733	19.23.53,55	1762	18.40.26,11	1792	18.43.20,05
1734	19.22.56,27	1763	18.39.28,82	1793	18.42.22,76
1735	19.21.58,98	1764	18.42.28,09	1794	18.41.25,48
1736	19.24.58,25	1765	18.41.30,81	1795	18.40.28,19
1737	19.24. 0,97	1766	18.40.33,53	1796	18.43.27,47
1738	19.23. 3,69	1767	18.39.36,25	1797	18.42.30,18
1739	19.22. 6,40	1768	18.42.35,51	1798	18.41.32,90
1740	19.25. 5,67	1769	18.41.38,23	1799	18.40.35,61
1741	19.24. 8,39	1770	18.40.40,95	1800	18.39.38,33
1742	19.23.11,11	1771	18.39.43,67	1801	18.38.41,05
1743	19.22.13,82	1772	18.42.42,94	1802	18.37.43,77
1744	19.25.13,09	1773	18.41.45,65	1803	18.36.46,49
1745	19.24.15,81	1774	18.40.48,37	1804	18.39.45,75
1746	19.23.18,53	1775	18.39.51,09	1805	18.38.48,41
1747	19.22.21,25	1776	18.42.50,36	1806	18.37.51,19
1748	19.25.20,51	1777	18.41.53,07	1807	18.36.53,91
1749	19.24.23,23	1778	18.40.55,79	1808	18.39.53,17
1750	19.23.25,95	1779	18.39.58,51	1809	18.38.55,83
1751	19.22.28,66	1780	18.42.57,78	1810	18.37.58,61
1752	19.25.27,94	1781	18.42. 0,49	1811	18.37. 1,33

TABLE XX.

The mean Motions of the Sun in Right Aſcenſion in Time to every Day in the Year.

Days.	January.	February.	March.	April.	May.	June.	July.	Auguſt.	September.	October.	November	December.
	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.
1	0. 3. 56,6	2. 6. 9,8	3. 56. 33,3	5. 58. 46,5	7. 57. 3,2	9. 59. 16,4	11. 57. 33, 1	13. 59. 46,3	16. 1. 59,5	18. 0. 16,2	20. 2. 29,4	22. 0. 46,0
2	0. 7. 53,1	2. 10. 6,3	4. 0. 29,9	6. 2. 43,1	8. 0. 59,8	10. 3. 13,0	12. 1. 29,6	14. 3. 42,8	16. 5. 56,1	18. 4. 12,7	20. 6. 26,0	22. 4. 42,6
3	0. 11. 49,7	2. 14. 2,9	4. 4. 26,4	6. 6. 39,7	8. 4. 56,3	10. 7. 9,5	12. 5. 26,2	14. 7. 39,4	16. 9. 52,6	18. 8. 9,3	20. 10. 22,5	22. 8. 39,2
4	0. 15. 46,2	2. 17. 59,4	4. 8. 23,0	6. 10. 36,2	8. 8. 52,9	10. 11. 6,1	12. 9. 22,7	14. 11. 36,0	16. 13. 49,2	18. 12. 5,8	20. 14. 19,1	22. 12. 35,7
5	0. 19. 42,8	2. 21. 56,0	4. 12. 19,5	6. 14. 32,8	8. 12. 49,4	10. 15. 2,6	12. 13. 19,3	14. 15. 32,5	16. 17. 45,7	18. 16. 2,4	20. 18. 15,6	22. 16. 32,3
6	0. 23. 39,3	2. 25. 52,5	4. 16. 16,1	6. 18. 29,3	8. 16. 46,0	10. 18. 59,2	12. 17. 15,9	14. 19. 29,1	16. 21. 42,3	18. 19. 59,0	20. 22. 12,2	22. 20. 28,8
7	0. 27. 35,9	2. 29. 49,1	4. 20. 12,7	6. 22. 25,9	8. 20. 42,5	10. 22. 55,7	12. 21. 12,4	14. 23. 25,6	16. 25. 38,8	18. 23. 55,5	20. 26. 8,7	22. 24. 25,4
8	0. 31. 32,4	2. 33. 45,7	4. 24. 9,2	6. 26. 22,4	8. 24. 39,1	10. 26. 52,3	12. 25. 9,0	14. 27. 22,2	16. 29. 35,4	18. 27. 52,1	20. 30. 5,3	22. 28. 21,9
9	0. 35. 29,0	2. 37. 42,2	4. 28. 5,8	6. 30. 19,0	8. 28. 35,6	10. 30. 48,9	12. 29. 5,5	14. 31. 18,7	16. 33. 32,0	18. 31. 48,6	20. 34. 1,8	22. 32. 18,5
10	0. 39. 25,6	2. 41. 38,8	4. 32. 2,3	6. 34. 15,5	8. 32. 32,2	10. 34. 45,4	12. 33. 2, 1	14. 35. 15,3	16. 37. 28,5	18. 35. 45,2	20. 37. 58,4	22. 36. 15,0
11	0. 43. 22,1	2. 45. 35,3	4. 35. 58,9	6. 38. 12,1	8. 36. 28,8	10. 38. 42,0	12. 36. 58,6	14. 39. 11,8	16. 41. 25. 1	18. 39. 41,7	20. 41. 54,9	22. 40. 11,6
12	0. 47. 18,7	2. 49. 31,9	4. 39. 55,4	6. 42. 8,6	8. 40. 25,3	10. 42. 38,5	12. 40. 55,2	14. 43. 8,4	16. 45. 21,6	18. 43. 38,3	20. 45. 51,5	22. 44. 8,2
13	0. 51. 15,2	2. 53. 28,4	4. 43. 52,0	6. 46. 5,2	8. 44. 21,9	10. 46. 35,1	12. 44. 51,7	14. 47. 5,0	16. 49. 18,2	18. 47. 34,8	20. 49. 48,1	22. 48. 4,7
14	0. 55. 11,8	2. 57. 25,0	4. 47. 48,5	6. 50. 1,8	8. 48. 18,4	10. 50. 31,6	12. 48. 48,3	14. 51. 1,5	16. 53. 14,7	18. 51. 31,4	20. 53. 44,6	22. 52. 1,3
15	0. 59. 8,3	3. 1. 21,5	4. 51. 45,1	6. 53. 58,3	8. 52. 15,0	10. 54. 28,2	12. 52. 44,9	14. 54. 58,1	16. 57. 11,3	18. 55. 27,9	20. 57. 41,2	22. 55. 57,8
16	1. 3. 4,9	3. 5. 18,1	4. 55. 41,6	6. 57. 54,9	8. 56. 11,5	10. 58. 24,7	12. 56. 41,4	14. 58. 54,6	17. 1. 7,8	18. 59. 24,5	21. 1. 37,7	22. 59. 54,4
17	1. 7. 1,4	3. 9. 14,7	4. 59. 38,2	7. 1. 51,4	9. 0. 8,1	11. 2. 21,3	13. 0. 38,0	15. 2. 51,2	17. 5. 4,4	19. 3. 21,1	21. 5. 34,3	23. 3. 50,9
18	1. 10. 58,0	3. 13. 11,2	5. 3. 34,8	7. 5. 48,0	9. 4. 4,6	11. 6. 17,9	13. 4. 34,5	15. 6. 47,7	17. 9. 1,0	19. 7. 17,6	21. 9. 30,8	23. 7. 47,5
19	1. 14. 54,5	3. 17. 7,8	5. 7. 31,3	7. 9. 44,5	9. 8. 1,2	11. 10. 14,4	13. 8. 31,1	15. 10. 44,3	17. 12. 57,5	19. 11. 14,2	21. 13. 27,4	23. 11. 44,0
20	1. 18. 51,1	3. 21. 4,3	5. 11. 27,9	7. 13. 41,1	9. 11. 57,7	11. 14. 11,0	13. 12. 27,6	15. 14. 40,8	17. 16. 54,1	19. 15. 10,7	21. 17. 23,9	23. 15. 40,6
21	1. 22. 47,7	3. 25. 0,9	5. 15. 24,4	7. 17. 37,6	9. 15. 54,3	11. 18. 7,5	13. 16. 24,2	15. 18. 37,4	17. 20. 50,6	19. 19. 7,3	21. 21. 20,5	23. 19. 37,1
22	1. 26. 44,2	3. 28. 57,4	5. 19. 21,0	7. 21. 34,2	9. 19. 50,9	11. 22. 4,1	13. 20. 20,7	15. 22. 34,0	17. 24. 47,2	19. 23. 3,8	21. 25. 17,1	23. 23. 33,7
23	1. 30. 40,8	3. 32. 54,0	5. 23. 17,5	7. 25. 30,8	9. 23. 47,4	11. 26. 0,6	13. 24. 17,3	15. 26. 30,5	17. 28. 43,7	19. 27. 0,4	21. 29. 13,6	23. 27. 30,3
24	1. 34. 37,3	3. 36. 50,5	5. 27. 14,1	7. 29. 27,3	9. 27. 44,0	11. 29. 57,2	13. 28. 13,8	15. 30. 27,1	17. 32. 40,3	19. 30. 56,9	21. 33. 10,2	23 31. 26,8
25	1. 38. 33,9	3. 40. 47,1	5. 31. 10,6	7. 33. 23,9	9. 31. 40,5	11. 33. 53,7	13. 32. 10,4	15. 34. 23,6	17. 36. 36,8	19. 34. 53,5	21. 37. 6,7	23. 35. 23,4
26	1. 42. 30,4	3. 44. 43,6	5. 35. 7,2	7. 37. 20,4	9. 35. 37,1	11. 37. 50,3	13. 36. 7,0	15. 38. 20,2	17. 40. 33,4	19. 38. 50,1	21. 41. 3,3	23. 39. 19,9
27	1. 46. 27,0	3. 48. 40,2	5. 39. 3,8	7. 41. 17,0	9. 39. 33,6	11. 41. 46,9	13. 40. 3,5	15. 42. 16,7	17. 44. 29,9	19. 42. 46,6	21. 44. 59,8	23. 43. 16,5
28	1. 50. 23,5	3. 52. 36,8	5. 43. 0,3	7. 45. 13,5	9. 43. 30,2	11. 45. 43,4	13. 44. 0, 1	15. 46. 13,3	17. 48. 26,5	19. 46. 43,2	21. 48. 56,4	23. 47. 13,0
29	1. 54. 20,1		5. 46. 56,9	7. 49. 10,1	9. 47. 26,7	11. 49. 40,0	13. 47. 56,6	15. 50. 9,8	17. 52. 23,1	19. 50. 39,7	21. 52. 52,9	23. 51. 9,6
30	1. 58. 16,7		5. 50. 53,4	7. 53. 6,6	9. 51. 23,3	11. 53. 36,5	13. 51. 53,2	15. 54. 6,4	17. 56. 19,6	19. 54. 36,3	21. 56. 49,5	23. 55. 6,1
31	2. 2. 13,2		5. 54. 50,0		9. 55. 19,9		13. 55. 49,7	15. 58. 3,0		19. 58. 32,8		23. 59. 2,7

In the Months of January and February in Leap Year take out for the Day preceding the given Day.

TABLE

TABLE XXI.

Mean Motion of the Sun's Right Aſcenſion in Time to Hours and Minutes of Sidereal Time.

Sidereal Time.	Sun's mean Mot. in R.A. in Time.	Sidereal Time.	Sun's mean Mot. in R.A. in Time.	Sidereal Time.	Sun's mean Mot. in R.A. in Time.
H.	M. S.	M.	S.	M.	S.
1	0. 9,83	1	0,16	31	5,08
2	0. 19,66	2	0,33	32	5,24
3	0. 29,49	3	0,49	33	5,41
4	0. 39,32	4	0,66	34	5,57
5	0. 49,15	5	0,82	35	5,73
6	0. 58,98	6	0,98	36	5,90
7	1. 8,81	7	1,15	37	6,06
8	1. 18,64	8	1,31	38	6,23
9	1. 28,47	9	1,47	39	6,39
10	1. 38,30	10	1,64	40	6,55
11	1. 48,13	11	1,80	41	6,72
12	1. 57,95	12	1,97	42	6,88
13	2. 7,78	13	2,13	43	7,05
14	2. 17,61	14	2,29	44	7,21
15	2. 27,44	15	2,46	45	7,37
16	2. 37,27	16	2,62	46	7,54
17	2. 47,10	17	2,78	47	7,70
18	2. 56,93	18	2,95	48	7,86
19	3. 6,76	19	3,11	49	8,03
20	3. 16,59	20	3,28	50	8,19
21	3. 26,42	21	3,44	51	8,36
22	3. 36,25	22	3,60	52	8,52
23	3. 46,08	23	3,77	53	8,68
24	3. 55,91	24	3,93	54	8,85
		25	4,10	55	9,01
		26	4,26	56	9,17
		27	4,42	57	9,34
		28	4,59	58	9,50
		29	4,75	59	9,67
		30	4,91	60	9,83

TABLE

TABLE XXII.

The mean aſtronomical Refractions.

Apparent Zen. Diſt.	Refraction.	Difference.	Apparent Zen. Diſt.	Refraction.	Difference.	Apparent Zen. Diſt.	Refraction.	Difference.
D	′ ″	″	D	′ ″	″	D	′ ″	″
1	0. 1,0	1,0	31	0. 34,2	1,4	61	1. 42,5	0. 4,3
2	0. 2,0	1,0	32	0. 35,6	1,4	62	1. 46,8	0. 4,7
3	0. 3,0	1,0	33	0. 37,0	1,4	63	1. 51,5	0. 4,9
4	0. 4,0	1,0	34	0. 38,4	1,5	64	1. 56,4	0. 5,3
5	0. 5,0	1,0	35	0. 39,9	1,5	65	2. 1,7	0. 5,7
6	0. 6,0	1,0	36	0. 41,4	1,5	66	2. 7,4	0. 6,2
7	0. 7,0	1,0	37	0. 42,9	1,6	67	2. 13,6	0. 6,7
8	0. 8,0	1,0	38	0. 44,5	1,6	68	2. 20,3	0. 7,2
9	0. 9,0	1,0	39	0. 46,1	1,7	69	2. 27,5	0. 8,0
10	0. 10,0	1,1	40	0. 47,8	1,7	70	2. 35,5	0. 8,8
11	0. 11,1	1,0	41	0. 49,5	1,8	71	2. 44,3	0. 9,6
12	0. 12,1	1,0	42	0. 51,3	1,8	72	2. 53,9	0. 10,8
13	0. 13,1	1,1	43	0. 53,1	1,9	73	3. 4,7	0. 12,0
14	0. 14,2	1,1	44	0. 55,0	1,9	74	3. 16,7	0. 13,5
15	0. 15,3	1,0	45	0. 56,9	2,0	75	3. 30,2	0. 15,3
16	0. 16,3	1,1	46	0. 58,9	2,1	76	3. 45,5	0. 17,5
17	0. 17,4	1,1	47	1. 1,0	2,2	77	4. 3,0	0. 20,2
18	0. 18,5	1,1	48	1. 3,2	2,2	78	4. 23,2	0. 23,6
19	0. 19,6	1,1	49	1. 5,4	2,4	79	4. 46,8	0. 28,0
20	0. 20,7	1,2	50	1. 7,8	2,4	80	5. 14,8	0. 33,6
21	0. 21,9	1,1	51	1. 10,2	2,6	81	5. 48,4	0. 41,1
22	0. 23,0	1,2	52	1. 12,8	2,7	82	6. 29,5	0. 51,4
23	0. 24,2	1,2	53	1. 15,5	2,8	83	7. 20,9	1. 5,5
24	0. 25,4	1,2	54	1. 18,3	2,9	84	8. 26,4	1. 26,1
25	0. 26,6	1,2	55	1. 21,2	3,1	85	9. 52,5	
26	0. 27,8	1,2	56	1. 24,3	3,2			
27	0. 29,0	1,3	57	1. 27,5	3,5			
28	0. 30,3	1,3	58	1. 31,0	3,6			
29	0. 31,6	1,3	59	1. 34,6	3,8			
30	0. 32,9	1,3	60	1. 38,4	4,1			

TABLE XXIII.

Decimal Numbers for computing the Corrections of the mean aſtronomical Refractions depending on the Barometer and Thermometer.

Enter the Table with the Height of the Barometer expreſſed in Inches and Decimals at Top, and with the Height of Fahrenheit's Thermometer expreſſed in Degrees on the Side.

Bar. / Ther. / °	29,0	29,1	29,2	29,3	29,4	29,5	29,6	29,7	29,8	29,9	30,0	30,1	30,2	30,3	30,4	30,5	30,6	30,7	30,8	30,9	31 0
20	+,059	+,063	+,067	+,070	+,074	+,077	+,081	+,085	+,088	+,092	+,096	+,099	+,103	+,107	+,110	+,114	+,118	+,121	+,125	+,129	+,132
21	+,056	+,060	+,064	+,067	+,071	+,075	+,078	+,082	+,085	+,089	+,093	+,096	+,100	+,104	+,107	+,111	+,115	+,118	+,122	+,126	+,129
22	+,054	+,057	+,061	+,064	+,068	+,072	+,075	+,079	+,083	+,086	+,090	+,094	+,097	+,101	+,104	+,108	+,112	+,115	+,119	+,123	+,126
23	+,051	+,054	+,058	+,062	+,065	+,069	+,072	+,076	+,080	+,083	+,087	+,091	+,094	+,098	+,101	+,105	+,109	+,112	+,116	+,120	+,123
24	+,048	+,051	+,055	+,059	+,062	+,066	+,070	+,073	+,077	+,080	+,084	+,088	+,091	+,095	+,098	+,102	+,106	+,109	+,113	+,117	+,120
25	+,045	+,049	+,052	+,056	+,060	+,063	+.067	+,070	+,074	+,078	+,081	+,085	+,088	+,092	+,096	+,099	+,103	+,106	+,110	+,114	+,117
26	+,042	+,046	+,049	+,053	+,057	+,060	+,064	+,067	+,071	+,075	+.078	+,082	+,085	+,089	+,093	+,096	+,100	+,103	+,107	+,111	+,114
27	+,040	+,043	+,047	+,050	+,054	+,057	+,061	+,065	+,068	+,072	+,075	+,079	+,083	+,086	+,090	+,093	+,097	+,100	+,104	+,108	+,111
28	+,037	+,040	+,044	+,048	+,051	+,055	+,058	+,062	+,065	+,069	+,073	+,076	+,080	+,083	+,087	+,090	+,094	+,098	+,101	+,105	+,108
29	+,034	+,038	+,041	+,045	+,048	+,052	+,055	+,059	+,063	+,066	+,070	+,073	+,077	+,080	+,084	+,088	+,091	+,095	+,098	+,102	+,105
30	+,031	+,035	+,038	+,042	+,046	+,049	+,053	+,056	+,060	+,063	+,067	+,070	+,074	+,078	+,081	+,085	+,088	+,092	+,095	+,099	+,102
31	+,029	+,032	+,036	+,039	+,043	+,046	+,050	+,053	+,057	+,061	+,064	+,068	+,071	+,075	+,078	+,082	+,085	+,089	+,093	+,096	+,100
32	+,026	+,029	+,033	+,037	+,040	+,044	+,047	+,051	+,054	+,058	+,061	+,065	+,068	+,072	+,075	+,079	+,083	+,086	+,090	+,093	+,097
33	+,023	+,027	+,030	+,034	+,037	+,041	+,044	+,048	+,051	+,055	+,059	+,062	+,066	+,069	+,073	+,076	+,080	+,083	+,087	+,090	+,094
34	+,021	+,024	+,028	+,031	+,035	+,038	+,042	+,045	+,049	+,052	+,056	+,059	+,063	+,066	+,070	+,073	+,077	+,080	+,084	+,088	+,091
35	+,018	+,021	+,025	+,028	+,032	+,036	+,039	+,043	+,046	+,050	+,053	+,057	+,060	+,064	+,067	+,071	+,074	+,078	+,081	+,085	+,088
36	+,015	+,019	+,022	+,026	+,029	+,033	+,036	+,040	+,043	+,047	+,050	+,054	+,057	+,061	+,064	+,068	+,071	+,075	+,078	+,082	+,085
37	+,013	+,016	+,020	+,023	+,027	+,030	+,034	+,037	+,041	+,044	+,048	+,051	+,055	+,058	+,062	+,065	+,069	+,072	+,076	+,079	+,083
38	+,010	+,014	+,017	+,020	+,024	+,027	+,031	+,034	+,038	+,041	+,045	+,048	+,052	+,055	+,059	+,062	+,066	+,069	+,073	+,076	+,080
39	+,007	+,011	+,014	+,018	+,021	+,025	+,028	+,032	+,035	+,039	+,042	+,046	+,049	+,053	+,056	+,060	+,063	+,067	+,070	+,074	+,077
40	+,005	+,008	+,012	+,015	+,019	+,022	+,026	+,029	+,033	+,036	+,040	+,043	+,046	+,050	+,053	+,057	+,060	+,064	+,067	+,071	+,074
41	+,002	+,006	+,009	+,013	+,016	+,020	+,023	+,026	+,030	+,033	+,037	+,040	+,044	+,047	+,051	+,054	+,058	+,061	+,065	+,068	+,071
42	,000	+,003	+,007	+,010	+,014	+,017	+,020	+,024	+,027	+,031	+,034	+,038	+,041	+,045	+,048	+,051	+,055	+,058	+,062	+,065	+,069
43	—,003	+,001	+,004	+,008	+,011	+,014	+,018	+,021	+,025	+,028	+,032	+,035	+,038	+,042	+,045	+,049	+,052	+,056	+,059	+,063	+,066
44	—,005	—,002	+,002	+,005	+,008	+,012	+,015	+,019	+,022	+,026	+,029	+,032	+,036	+,039	+,043	+,046	+,050	+,053	+,056	+,060	+,063
45	—,008	—,004	—,001	+,002	+,006	+,009	+,013	+,016	+,020	+,023	+,026	+,030	+,033	+,037	+,040	+,044	+,047	+,050	+,054	+,057	+,061
46	—,010	—,007	—,004	,000	+,003	+,007	+,010	+,014	+,017	+,020	+,024	+,027	+,031	+,034	+,037	+,041	+,044	+,048	+,051	+,054	+,058
47	—,013	—,009	—,006	—,003	+,001	+,004	+,008	+,011	+,014	+,018	+,021	+,025	+,028	+,031	+,035	+,038	+,042	+ 045	+,049	+,052	+,055
48	—,015	—,012	—,009	—,005	—,002	+,002	+,005	+,008	+,012	+,015	+,019	+,022	+,025	+,029	+,032	+,036	+,039	+,042	+,046	+,049	+,053
49	—,018	—,015	—,011	—,008	—,004	—,001	+,003	+,006	+,009	+,013	+,016	+,019	+,023	+,026	+,030	+,033	+,036	+,040	+,043	+,047	+,050
50	—,020	—,017	—,014	—,010	—,007	—,003	,000	+,003	+,007	+,010	+,014	+,017	+,020	+,024	+,027	+,030	+,034	+,037	+,041	+,044	+,047

TABLE XXIII. continued.

Bar.	29,0	29,1	29,2	29,3	29,4	29,5	29,6	29,7	29,8	29,9	30,0	30,1	30,2	30,3	30,4	30,5	30,6	30,7	30,8	30,9	31,0
Ther.																					
°																					
50	—,020	—,017	—,014	—,010	—,007	—,003	,000	+,003	+,007	+,010	+,014	+,017	+,020	+,024	+,027	+,030	+,034	+,037	+,041	+,044	+,047
51	—,023	—,019	—,016	—,013	—,009	—,006	—,003	+,001	+,004	+,008	+,011	+,014	+,018	+,021	+,025	+,028	+,031	+,035	+,038	+,041	+,045
52	—,025	—,022	—,019	—,015	—,012	—,008	—,005	—,002	+,002	+,005	+,008	+,012	+,015	+,019	+,022	+,025	+,029	+,032	+,035	+,039	+,042
53	—,028	—,024	—,021	—,018	—,014	—,011	—,008	—,004	—,001	+,003	+,006	+,009	+,013	+,016	+,019	+,023	+,026	+,030	+,033	+,036	+,040
54	—,030	—,027	—,023	—,020	—,017	—,013	—,010	—,007	—,003	,000	+,004	+,007	+,010	+,014	+,017	+,020	+,024	+,027	+,030	+,034	+,037
55	—,032	—,029	—,026	—,022	—,019	—,016	—,012	—,009	—,006	—,002	+,001	+,004	+,008	+,011	+,014	+,018	+,021	+,024	+,028	+,031	+,034
56	—,035	—,032	—,028	—,025	—,022	—,018	—,015	—,012	—,008	—,005	—,002	+,002	+,005	+,009	+,012	+,015	+,019	+,022	+,025	+,029	+,032
57	—,037	—,034	—,031	—,027	—,024	—,021	—,017	—,014	—,011	—,007	—,004	—,001	+,003	+,006	+,009	+,013	+,016	+,019	+,023	+,026	+,029
58	—,040	—,036	—,033	—,030	—,026	—,023	—,020	—,016	—,013	—,010	—,006	—,003	,000	+,004	+,007	+,010	+,014	+,017	+,020	+,024	+,027
59	—,042	—,039	—,035	—,032	—,029	—,025	—,022	—,019	—,015	—,012	—,009	—,006	—,002	+,001	+,004	+,008	+,011	+,014	+,018	+,021	+,024
60	—,044	—,041	—,038	—,034	—,031	—,028	—,024	—,021	—,018	—,015	—,011	—,008	—,005	—,001	+,002	+,005	+,009	+,012	+,015	+,019	+,022
61	—,047	—,043	—,040	—,037	—,033	—,030	—,027	—,024	—,020	—,017	—,014	—,010	—,007	—,004	—,001	+,003	+,006	+,009	+,013	+,016	+,019
62	—,049	—,046	—,042	—,039	—,036	—,032	—,029	—,026	—,023	—,019	—,016	—,013	—,009	—,006	—,003	,000	+,004	+,007	+,010	+,014	+,017
63	—,051	—,048	—,045	—,041	—,038	—,035	—,032	—,028	—,025	—,022	—,018	—,015	—,012	—,009	—,005	—,002	+,001	+,005	+,008	+,011	+,014
64	—,053	—,050	—,047	—,044	—,040	—,037	—,034	—,031	—,027	—,024	—,021	—,018	—,014	—,011	—,008	—,004	—,001	+,002	+,005	+,009	+,012
65	—,056	—,052	—,049	—,046	—,043	—,039	—,036	—,033	—,030	—,026	—,023	—,020	—,017	—,013	—,010	—,007	—,004	,000	+,003	+,006	+,010
66	—,058	—,055	—,052	—,048	—,045	—,042	—,039	—,035	—,032	—,029	—,026	—,022	—,019	—,016	—,013	—,009	—,006	—,003	+,001	+,004	+,007
67	—,060	—,057	—,054	—,051	—,047	—,044	—,041	—,038	—,034	—,031	—,028	—,025	—,021	—,018	—,015	—,012	—,008	—,005	—,002	+,001	+,005
68	—,063	—,059	—,056	—,053	—,050	—,046	—,043	—,040	—,037	—,033	—,030	—,027	—,024	—,020	—,017	—,014	—,011	—,008	—,004	—,001	+,002
69	—,065	—,062	—,058	—,055	—,052	—,049	—,045	—,042	—,039	—,036	—,032	—,029	—,026	—,023	—,020	—,016	—,013	—,010	—,007	—,004	,000
70	—,067	—,064	—,061	—,057	—,054	—,051	—,048	—,044	—,041	—,038	—,035	—,032	—,028	—,025	—,022	—,019	—,015	—,012	—,009	—,006	—,003
71	—,069	—,066	—,063	—,060	—,056	—,053	—,050	—,047	—,044	—,040	—,037	—,034	—,031	—,027	—,024	—,021	—,018	—,015	—,011	—,008	—,005
72	—,071	—,068	—,065	—,062	—,059	—,055	—,052	—,049	—,046	—,043	—,039	—,036	—,033	—,030	—,027	—,023	—,020	—,017	—,014	—,011	—,007
73	—,074	—,070	—,067	—,064	—,061	—,058	—,054	—,051	—,048	—,045	—,042	—,038	—,035	—,032	—,029	—,026	—,022	—,019	—,016	—,013	—,010
74	—,076	—,073	—,069	—,066	—,063	—,060	—,057	—,053	—,050	—,047	—,044	—,041	—,038	—,034	—,031	—,028	—,025	—,022	—,018	—,015	—,012
75	—,078	—,075	—,072	—,068	—,065	—,062	—,059	—,056	—,053	—,049	—,046	—,043	—,040	—,037	—,033	—,030	—,027	—,024	—,021	—,017	—,014
76	—,080	—,077	—,074	—,071	—,067	—,064	—,061	—,058	—,055	—,052	—,048	—,045	—,042	—,039	—,036	—,032	—,029	—,026	—,023	—,020	—,017
77	—,082	—,079	—,076	—,073	—,070	—,066	—,063	—,060	—,057	—,054	—,051	—,047	—,044	—,041	—,038	—,035	—,032	—,028	—,025	—,022	—,019
78	—,084	—,081	—,078	—,075	—,072	—,069	—,065	—,062	—,059	—,056	—,053	—,050	—,047	—,043	—,040	—,037	—,034	—,031	—,028	—,024	—,021
79	—,087	—,083	—,080	—,077	—,074	—,071	—,068	—,065	—,061	—,058	—,055	—,052	—,049	—,046	—,042	—,039	—,036	—,033	—,030	—,027	—,023
80	—,089	—,086	—,082	—,079	—,076	—,073	—,070	—,067	—,064	—,060	—,057	—,054	—,051	—,048	—,045	—,042	—,038	—,035	—,032	—,029	—,026

TAB. XXIV.

The Sun's Parallax in Altitude.

Zenith Dist.	Sun's Parallax.
D	//
0	0,0
3	0,4
6	0,9
9	1,4
12	1,8
15	2,3
18	2,7
21	3,1
24	3,6
27	4,0
30	4,4
33	4,8
36	5,2
39	5,5
42	5,9
45	6,2
48	6,5
51	6,8
54	7,1
57	7,4
60	7,6
63	7,8
66	8,0
69	8,2
72	8,4
75	8,5
78	8,6
81	8,7
84	8,7
87	8,8
90	8,8

TABLE XXV.

To find the annual Precession of a Star in North Polar Distance.

Argum. R. Asc. of Star.

S	0	1	2	S
S	6 +	7 +	8 +	S
D	//	//	//	D
0	20,05	17,36	10,02	30
1	20,04	17,19	9,72	29
2	20,03	17,00	9,41	28
3	20,02	16,82	9,10	27
4	20,00	16,62	8,79	26
5	19,97	16,42	8,47	25
6	19,94	16,22	8,15	24
7	19,90	16,01	7,83	23
8	19,85	15,80	7,51	22
9	19,80	15,58	7,19	21
10	19,74	15,36	6,86	20
11	19,68	15,13	6,53	19
12	19,61	14,90	6,20	18
13	19,53	14,66	5,86	17
14	19,45	14,42	5,53	16
15	19,37	14,18	5,19	15
16	19,27	13,93	4,84	14
17	19,17	13,67	4,51	13
18	19,07	13,41	4,17	12
19	18,96	13,15	3,83	11
20	18,84	12,89	3,48	10
21	18,72	12,62	3,14	9
22	18,59	12,35	2,79	8
23	18,46	12,07	2,44	7
24	18,32	11,79	2,09	6
25	18,17	11,50	1,75	5
26	18,02	11,21	1,40	4
27	17,86	10,92	1,05	3
28	17,70	10,62	0,70	2
29	17,53	10,32	0,35	1
30	17,36	10,02	0,00	0
S	5 +	4 +	3 +	S
S	11	10	9	S

TABLE XXVI.

Decimal Parts of a Year, and their Complements, for multiplying the annual Precession of a Star in North Polar Distance.

	Days	Dec.	Compl.
January	4	,01	,99
	7	,02	,98
	11	,03	,97
	15	,04	,96
	18	,05	,95
	22	,06	,94
	26	,07	,93
	29	,08	,92
February	2	,09	,91
	6	,10	,90
	9	,11	,89
	13	,12	,88
	16	,13	,87
	20	,14	,86
	24	,15	,85
	27	,16	,84
March	3	,17	,83
	7	,18	,82
	10	,19	,81
	14	,20	,80
	18	,21	,79
	21	,22	,78
	25	,23	,77
	29	,24	,76
April	1	,25	,75
	5	,26	,74
	9	,27	,73
	12	,28	,72
	16	,29	,71
	20	,30	,70
	23	,31	,69
	27	,32	,68
May	1	,33	,67
	4	,34	,66
May	8	,35	,65
	11	,36	,64
	15	,37	,63
	19	,38	,62
	22	,39	,61
	26	,40	,60
	30	,41	,59
June	2	,42	,58
	6	,43	,57
	10	,44	,56
	13	,45	,55
	17	,46	,54
	21	,47	,53
	24	,48	,52
	28	,49	,51
July	2	,50	,50
	5	,51	,49
	9	,52	,48
	13	,53	,47
	16	,54	,46
	20	,55	,45
	24	,56	,44
	27	,57	,43
	31	,58	,42
Auguſt	3	,59	,41
	7	,60	,40
	11	,61	,39
	14	,62	,38
	18	,63	,37
	22	,64	,36
	25	,65	,35
	29	,66	,34
September	2	,67	,33
September	5	,68	,32
	9	,69	,31
	13	,70	,30
	16	,71	,29
	20	,72	,28
	24	,73	,27
	27	,74	,26
October	1	,75	,25
	5	,76	,24
	8	,77	,23
	12	,78	,22
	16	,79	,21
	19	,80	,20
	23	,81	,19
	27	,82	,18
	30	,83	,17
Novemb.	3	,84	,16
	6	,85	,15
	10	,86	,14
	14	,87	,13
	17	,88	,12
	21	,89	,11
	25	,90	,10
	28	,91	,09
December	2	,92	,08
	6	,93	,07
	9	,94	,06
	13	,95	,05
	17	,96	,04
	20	,97	,03
	24	,98	,02
	28	,99	,01
	31	1,00	,00

TABLE XXVII.

Deviation of Stars in North Polar Diſtance,
Common to all the Stars.

		Right Aſcenſion of the Star.																			
		S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D	S D
		0 0	0 10	0 20	1 0	1 10	1 20	2 0	2 10	2 20	3 0	3 10	3 20	4 0	4 10	4 20	5 0	5 10	5 20	6 0
Long.	☽'s ☊.	6 0	6 10	6 20	7 0	7 10	7 20	8 0	8 10	8 20	9 0	9 10	9 20	10 0	10 10	10 20	11 0	11 10	11 20	12 0
S D	S D	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
0 0	6 0	0,0	−1,7	−3,3	−4,8	−6,1	−7,3	−8,3	−9,0	−9,4	−9,5	−9,4	−9,0	−8,3	−7,3	−6,1	−4,8	−3,3	−1,7	0,0
0 10	6 10	+1,2	−0,4	2,1	3,6	5,1	6,4	7,5	8,4	9,0	9,4	9,5	9,3	8,8	8,0	7,0	5,8	4,4	2,8	−1,2
0 20	6 20	2,4	+0,8	−0,8	2,4	3,9	5,3	6,6	7,6	8,4	9,0	9,3	9,3	9,0	8,4	7,6	6,6	5,4	4,0	2,4
1 0	7 0	3,6	2,1	+0,5	−1,1	2,6	4,1	5,4	6,6	7,5	8,3	8,8	9,0	8,9	8,6	8,1	7,2	6,2	4,9	3,6
1 10	7 10	4,6	3,2	1,8	+0,3	−1,2	2,7	4,1	5,3	6,4	7,3	8,0	8,4	8,6	8,6	8,2	7,6	6,8	5,8	4,6
1 20	7 20	5,5	4,3	3,0	1,7	+0,2	−1,2	2,6	3,9	5,1	6,1	7,0	7,6	8,1	8,2	8,1	7,8	7,2	6,4	5,5
2 0	8 0	6,2	5,2	4,2	2,9	1,7	+0,3	−1,1	2,4	3,6	4,8	5,8	6,6	7,2	7,6	7,8	7,7	7,4	6,9	6,2
2 10	8 10	6,7	6,0	5,2	4,2	3,0	1,8	+0,5	−0,8	2,1	3,3	4,4	5,4	6,2	6,8	7,2	7,4	7,4	7,2	6,7
2 20	8 20	7,0	6,6	6,0	5,2	4,3	3,2	2,1	+0,8	−0,4	−1,7	2,8	4,0	4,9	5,8	6,4	6,9	7,2	7,2	7,0
3 0	9 0	7,1	7,0	6,7	6,2	5,5	4,6	3,6	2,4	+1,2	0,0	−1,2	2,4	3,6	4,6	5,4	6,2	6,7	7,0	7,1
3 10	9 10	7,0	7,2	7,2	6,9	6,4	5,8	4,9	4,0	2,8	+1,7	+0,4	−0,8	2,1	3,2	4,3	5,2	6,0	6,6	7,0
3 20	9 20	6,7	7,2	7,4	7,4	7,2	6,8	6,2	5,4	4,4	3,3	2,1	+0,8	−0,5	1,8	3,0	4,2	5,2	6,0	6,7
4 0	10 0	6,2	6,9	7,4	7,7	7,8	7,6	7,2	6,6	5,8	4,8	3,6	2,4	+1,1	−0,3	1,7	2,9	4,2	5,2	6,2
4 10	10 10	5,5	6,4	7,2	7,8	8,1	8,2	8,1	7,6	7,0	6,1	5,1	3,9	2,6	+1,2	−0,2	1,7	3,0	4,3	5,5
4 20	10 20	4,6	5,8	6,8	7,6	8,2	8,6	8,6	8,4	8,0	7,3	6,4	5,3	4,1	2,7	+1,2	−0,3	1,8	3,2	4,6
5 0	11 0	3,6	4,9	6,2	7,2	8,1	8,6	8,9	9,0	8,8	8,3	7,5	6,6	5,4	4,1	2,6	+1,1	−0,5	2,1	3,6
5 10	11 10	2,4	4,0	5,4	6,6	7,6	8,4	9,0	9,3	9,3	9,0	8,4	7,6	6,6	5,3	3,9	2,4	+0,8	−0,8	2,4
5 20	11 20	1,2	2,8	4,4	5,8	7,0	8,0	8,8	9,3	9,5	9,4	9,0	8,4	7,5	6,4	5,1	3,6	2,1	+0,4	1,2
6 0	12 0	0,0	1,7	3,3	4,8	6,1	7,0	8,3	9,0	9,4	9,5	9,4	9,0	8,3	7,3	6,1	4,8	3,3	+1,7	0,0

If the Longitude of the Moon's Node and Right Aſcenſion of the Star are both leſs or more than Six Signs, uſe the Algebraic Sign of the Table; but if One is leſs and the other more than Six Signs, change the Sign of the Table.

TABLE XXVIII.

To find the Annual Argument of Aberration of a Star in North Polar Diſtance.

The Argument at Top is the Declination of the Star to every Six Degrees.

The Argument on the Side is the Right Aſcenſion of a Northern Star, or the Oppoſite to the Right Aſcenſion of a Southern Star, to every Six Degrees.

Subſtr. from 6 S		Add to 6 S.		Declination of Star.																			
				0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
S.	D.	S.	D.	M.	D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.
VIII	30	IX	0	0	0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
	24		6	0	1 16	0 2 9	0 2 48	0 3 19	0 3 44	0 4 6	0 4 25	0 4 42	0 4 58	0 5 14	0 5 29	0 5 44	0 5 59	0 6 15	0 6 32
	18		12	0	2 33	0 4 18	0 5 36	0 6 38	0 7 28	0 8 11	0 8 50	0 9 24	0 9 56	0 10 27	0 10 57	0 11 27	0 11 57	0 12 29	0 13 3
	12		18	0	3 48	0 6 25	0 8 23	0 9 55	0 11 11	0 12 16	0 13 14	0 14 6	0 14 54	0 15 40	0 16 24	0 17 9	0 17 54	0 18 40	0 19 30
	6		24	0	5 1	0 8 32	0 11 9	0 13 13	0 14 54	0 16 21	0 17 37	0 18 46	0 19 50	0 20 51	0 21 50	0 22 48	0 23 47	0 24 49	0 25 54
VIII	0	X	0	0	6 14	0 10 37	0 13 54	0 16 30	0 18 37	0 20 26	0 22 1	0 23 27	0 24 46	0 26 1	0 27 14	0 28 26	0 29 38	1 0 53	1 2 11
VII	24	X	6	0	7 23	0 12 40	0 16 38	0 19 45	0 22 19	0 24 29	0 26 24	0 28 6	0 29 41	1 1 10	1 2 35	1 4 0	1 5 25	1 6 52	1 8 23
	18		12	0	8 31	0 14 44	0 19 20	0 23 0	0 26 1	0 28 33	1 0 46	1 2 45	1 4 34	1 6 17	1 7 55	1 9 35	1 11 8	1 12 46	1 14 28
	12		18	0	9 35	0 16 38	0 22 0	0 26 12	0 29 41	1 2 36	1 5 8	1 7 23	1 9 27	1 11 22	1 13 13	1 15 0	1 16 47	1 18 35	1 20 27
	6		24	0	10 35	0 18 32	0 24 37	0 29 26	1 3 21	1 6 39	1 9 30	1 12 1	1 14 19	1 16 27	1 18 28	1 20 26	1 22 22	1 24 19	1 26 19
VII	0	XI	0	0	11 31	0 20 22	0 27 12	1 2 37	1 7 1	1 10 42	1 13 52	1 16 26	1 19 11	1 21 31	1 23 42	1 25 49	1 27 54	1 29 59	2 2 6
VI	24	XI	6	0	12 23	0 22 8	0 29 44	1 5 47	1 10 41	1 14 46	1 18 15	1 21 18	1 24 3	1 26 34	1 28 41	2 1 12	2 3 23	2 5 35	2 7 47
	18		12	0	13 8	0 23 47	1 2 13	1 8 55	1 14 20	1 18 50	1 22 29	1 25 58	1 28 57	2 1 38	2 4 9	2 6 32	2 8 50	2 11 7	2 13 24
	12		18	0	13 48	0 25 21	1 4 37	1 12 1	1 18 0	1 22 56	1 27 5	2 0 41	2 3 51	2 6 43	2 9 23	2 11 53	2 14 17	2 16 38	2 18 58
	6		24	0	14 21	0 26 47	1 6 57	1 15 6	1 21 41	1 27 4	2 1 57	2 5 26	2 8 49	2 11 51	2 14 39	2 17 14	2 19 42	2 22 7	2 24 30
VI	0	O	0	0	14 47	0 28 5	1 9 12	1 18 10	1 25 23	2 1 16	2 6 8	2 10 16	2 13 51	2 17 3	2 19 56	2 22 37	2 25 10	2 27 36	3 0 0
V	24	O	6	0	15 14	0 29 17	1 11 20	1 21 13	1 29 8	2 5 32	2 10 47	2 15 11	2 18 59	2 22 18	2 25 17	2 28 4	3 0 37	3 3 7	3 5 30
	18		12	0	15 12	1 0 9	1 13 22	1 24 15	2 2 57	2 9 55	2 15 34	2 20 16	2 24 14	2 27 42	3 0 44	3 3 33	3 6 11	3 8 39	3 11 2
	12		18	0	15 10	1 0 52	1 15 14	1 27 15	2 6 50	2 14 25	2 20 30	2 25 25	2 29 35	3 3 13	3 6 23	3 9 12	3 11 48	3 14 15	3 16 36
	6		24	0	14 57	1 1 19	1 16 57	2 0 15	2 10 51	2 19 8	2 25 39	3 0 54	3 5 13	3 8 54	3 12 5	3 14 56	3 17 31	3 19 55	3 22 13
V	0	I	0	0	14 34	1 1 27	1 18 27	2 3 40	2 15 2	2 24 5	3 1 4	3 6 35	3 11 3	3 14 47	3 17 59	3 20 49	3 23 21	3 25 42	3 27 54
IV	24	I	6	0	13 58	1 1 13	1 19 40	2 6 16	2 19 26	2 29 21	3 6 49	3 12 34	3 17 9	3 20 55	3 24 5	3 26 51	3 29 19	4 1 34	4 3 41
	18		12	0	13 10	1 0 31	1 20 31	2 9 17	2 24 8	3 5 2	3 12 59	3 18 56	3 23 35	3 27 19	4 0 25	4 3 6	4 5 27	4 7 35	4 9 33
	12		18	0	12 8	0 29 17	1 20 51	2 12 19	2 29 16	3 11 15	3 19 40	3 25 45	4 0 22	4 4 1	4 7 0	4 9 32	4 11 44	4 13 43	4 15 32
	6		24	0	11 0	0 27 26	1 20 31	2 15 25	3 5 3	3 18 14	3 27 0	4 3 6	4 7 36	4 11 3	4 13 50	4 16 7	4 18 12	4 19 59	4 21 37
IV	0	II	0	0	9 28	0 25 50	1 19 11	2 18 37	3 11 46	3 26 11	4 5 8	4 11 3	4 15 16	4 18 28	4 20 58	4 23 3	4 24 50	4 26 23	4 27 49
III	24	II	6	0	7 51	0 21 26	1 16 20	2 22 2	3 19 58	4 5 27	4 14 12	4 20 4	4 23 26	4 26 12	4 28 23	5 0 8	5 1 38	5 2 56	5 4 6
	18		12	0	6 3	0 17 8	1 11 8	2 25 51	4 0 31	4 16 21	4 24 32	4 28 58	5 2 4	5 4 19	5 6 2	5 7 25	5 8 35	5 9 35	5 10 30
	12		18	0	4 5	0 11 58	1 2 14	3 0 40	4 14 57	4 29 14	5 5 27	5 8 55	5 11 8	5 12 42	5 13 54	5 14 51	5 15 39	5 16 21	5 16 57
	6		24	0	2 5	0 6 12	0 18 24	3 9 28	4 14 48	5 13 58	5 17 27	5 19 18	5 20 29	5 21 7	5 21 54	5 22 24	5 22 48	5 23 9	5 23 28
III	0		30	0	0 0	0 0 0	0 0 0	3 0 0	4 14 24	5 13 58	5 17 27	5 19 18	5 20 29	5 21 7	5 21 54	5 22 24	5 22 48	5 23 9	5 23 28

Supplement for Stars which are near both the Ecliptic and the Colure of the Solſtices.

		Declination of Star.													
		19	20	21	22	23	24	25	26	27	28	29	30		
S.	D.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.	S. D. M.		
III	11	II 19	1 6 41	1 14 33	1 24 18	2 5 52	2 18 46	3 1 45	3 13 38	3 23 43	4 1 54	4 8 26	4 13 39	4 17 51	
	10	20	1 4 26	1 12 17	1 22 17	2 4 35	2 18 36	3 2 52	3 15 49	3 26 36	4 4 45	4 11 38	4 16 48	4 20 54	
	9	21	1 1 58	1 9 43	1 19 55	2 2 57	2 18 18	3 4 8	3 18 19	3 29 44	4 8 28	4 15 6	4 20 10	4 24 7	
	8	22	0 29 16	1 6 49	1 17 6	2 0 52	2 17 49	3 5 37	3 21 15	4 3 23	4 12 18	4 18 51	4 23 46	4 27 31	
	7	23	0 26 20	1 3 32	1 13 46	1 28 14	2 17 4	3 7 22	3 24 46	4 7 34	4 16 34	4 22 56	4 27 35	5 1 6	
	6	24	0 23 9	0 29 52	1 9 48	1 24 49	2 15 56	3 9 28	3 29 5	4 12 26	4 21 18	4 27 21	5 1 39	5 4 48	
	5	25	0 19 45	0 25 46	1 5 7	1 20 23	2 14 11	3 12 20	4 4 20	4 18 5	4 26 35	5 2 7	5 5 57	5 8 45	
	4	26	0 16 7	0 21 16	0 29 38	1 14 32	2 11 26	3 16 15	4 11 4	4 24 39	5 2 23	5 7 13	5 10 28	5 12 48	
	3	27	0 12 17	0 16 22	0 23 17	1 6 49	2 6 47	3 22 8	4 19 43	5 2 10	5 8 42	5 12 36	5 15 10	5 17 0	
	2	28	0 8 17	0 11 8	0 16 6	0 26 45	1 28 3	4 2 13	5 0 48	5 10 46	5 15 31	5 18 15	5 20 1	5 21 17	
	1	29	0 4 11	0 5 3	0 8 15	0 14 14	1 9 16	4 22 6	5 14 30	5 20 9	5 22 40	5 24 5	5 25 0	5 25 38	
III	0	30	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	6 0 0	6 0 0	6 0 0	6 0 0	6 0 0	6 0 0	6 0 0	

Enter the Table above with the Declination of the Star at Top, and its Right Aſcenſion on the Side if it be a Northern Star, or the oppoſite to its Right Aſc. if it be a Southern Star, and take out the Equation, in doing which it will be ſufficient to work out the Proportions within 20 or 30 Minutes.

N. B. But if the Star is in the Neighbourhood both of the Tropic and Solſtitial Colure, the Equation is to be ſought in the Supplement ſubjoined; and very near the Tropic or Colure it will be ſufficient to take out the Equation within a Degree or a Degree and Half.

Add the Equation to or ſubtract it from 6 Signs according as the Table directs, and you will have the Sun's Longitude at the Time of the Aberration being a Maximum to the North. Take the Difference of this Number and the Sun's actual Longitude, ſo that the Reſult may be leſs than 6 Signs, and you will have the annual Argument of Aberration in North Polar Diſtance.

TABLE

TABLE XXIX.

Greateſt Aberrations of Stars in North Polar Diſtance.

The Argument at Top, is the Declination of the Star to every Three Degrees.

The Argument on the Sides, is the Right Aſcenſion of a Northern Star, or the oppoſite to the Right Aſcenſion of a Southern Star.

Right Aſc. of a Northern Star, or oppoſite to Right Aſc. of a Southern Star.				Declination of Star.																							
				0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	60	66	72	78	84	90
S.	D.	S.	D.	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//
II	30	III	0	8,0	7,0	6,0	5,0	4,0	3,0	1,9	0,9	0,2	1,2	2,3	3,3	4,3	5,4	6,4	7,4	8,3	9,3	10,2	11,9	13,5	15,0	16,3	17,4	18,3
	27		3	8,0	7,0	6,0	5,0	4,0	3,0	2,0	1,0	0,5	1,4	2,4	3,4	4,4	5,4	6,4	7,4	8,3	9,3	10,2	11,9	13,5	15,0	16,3	17,4	18,3
	24		6	8,0	7,0	6,0	5,0	4,0	3,0	2,0	1,2	0,9	1,6	2,5	3,5	4,5	5,5	6,4	7,4	8,4	9,3	10,2	12,0	13,6	15,0	16,3	17,4	18,4
	21		9	8,0	7,0	6,0	5,0	4,1	3,1	2,2	1,5	1,3	1,9	2,7	3,6	4,6	5,6	6,5	7,5	8,5	9,4	10,3	12,0	13,6	15,1	16,4	17,5	18,4
	18		12	8,0	7,0	6,1	5,1	4,2	3,3	2,4	1,9	1,7	2,2	2,9	3,8	4,8	5,8	6,7	7,6	8,6	9,5	10,4	12,1	13,7	15,1	16,4	17,5	18,5
	15		15	8,0	7,0	6,1	5,2	4,3	3,5	2,6	2,3	2,1	2,5	3,2	4,1	5,0	6,0	6,9	7,8	8,7	9,6	10,5	12,2	13,8	15,2	16,5	17,6	18,6
	12		18	8,0	7,1	6,1	5,3	4,4	3,7	3,0	2,8	2,6	3,0	3,6	4,4	5,3	6,3	7,2	8,1	8,9	9,8	10,7	12,4	13,9	15,3	16,6	17,6	18,7
	6		24	8,0	7,1	6,2	5,4	4,6	4,0	3,5	3,5	3,3	3,7	4,3	5,1	5,9	6,8	7,6	8,5	9,3	10,2	11,0	12,7	14,2	15,5	16,8	17,8	18,8
II	0	IV	0	8,0	7,1	6,3	5,6	4,9	4,5	4,1	4,3	4,1	4,6	5,1	5,8	6,6	7,4	8,2	9,1	9,9	10,7	11,5	13,1	14,5	15,8	17,0	18,0	18,8
I	24		6	8,0	7,2	6,5	5,9	5,3	5,0	4,7	5,0	4,9	5,4	5,9	6,6	7,3	8,1	8,8	9,6	10,4	11,2	12,0	13,5	14,9	16,1	17,3	18,2	18,9
	18		12	8,0	7,3	6,6	6,2	5,8	5,5	5,3	5,7	5,7	6,2	6,7	7,3	8,0	8,8	9,5	10,3	11,0	11,8	12,5	14,0	15,3	16,5	17,6	18,4	19,1
	12		18	8,0	7,4	6,8	6,5	6,1	6,0	6,0	6,4	6,5	7,0	7,5	8,1	8,8	9,5	10,2	11,0	11,7	12,4	13,1	14,5	15,7	16,9	17,8	18,6	19,3
	6		24	8,0	7,5	7,0	6,8	6,5	6,5	6,6	7,1	7,2	7,6	8,2	8,9	9,5	10,2	11,0	11,6	12,3	13,0	13,7	15,0	16,2	17,3	18,1	18,9	19,4
I	0	V	0	8,0	7,6	7,2	7,1	6,9	7,0	7,2	7,7	7,9	8,4	9,0	9,6	10,2	10,9	11,6	12,3	13,0	13,7	14,3	15,5	16,6	17,6	18,5	19,1	19,6
O	24		6	8,0	7,7	7,4	7,4	7,3	7,4	7,7	8,4	8,6	9,2	9,7	10,3	10,9	11,6	12,3	13,0	13,6	14,2	14,8	16,0	17,1	17,9	18,8	19,3	19,7
	18		12	8,0	7,8	7,6	7,6	7,7	7,9	8,3	8,7	9,2	9,7	10,3	11,0	11,6	12,3	12,9	13,6	14,2	14,8	15,4	16,5	17,5	18,3	19,0	19,5	19,8
	12		18	8,0	7,9	7,8	7,9	8,1	8,4	8,8	9,3	9,8	10,4	11,0	11,6	12,2	12,9	13,5	14,2	14,8	15,4	15,9	17,0	17,9	18,6	19,3	19,7	19,9
	6		24	8,0	8,0	8,0	8,2	8,5	8,9	9,3	9,8	10,4	11,0	11,6	12,2	12,8	13,5	14,1	14,7	15,3	15,9	16,4	17,4	18,2	18,9	19,5	19,8	20,0
O	0	VI	0	8,0	8,1	8,2	8,4	8,8	9,3	9,8	10,3	10,9	11,5	12,2	12,8	13,4	14,0	14,6	15,2	15,8	16,3	16,8	17,8	18,6	19,2	19,6	19,9	20,0
XI	24		6	8,0	8,2	8,4	8,8	9,2	9,7	10,2	10,8	11,4	12,0	12,7	13,3	13,9	14,5	15,1	15,7	16,3	16,8	17,3	18,1	18,8	19,4	19,8	20,0	19,9
	18		12	8,0	8,3	8,6	9,0	9,5	10,0	10,6	11,2	11,9	12,6	13,2	13,8	14,4	15,0	15,6	16,2	16,7	17,2	17,6	18,4	19,1	19,6	19,9	20,0	19,8
	12		18	8,0	8,3	8,7	9,2	9,8	10,4	11,0	11,6	12,3	12,9	13,6	14,3	14,9	15,5	16,0	16,6	17,1	17,6	18,0	18,7	19,3	19,7	19,9	20,0	19,7
	6		24	8,0	8,4	8,9	9,4	10,0	10,7	11,4	12,0	12,7	13,3	14,0	14,7	15,3	15,9	16,4	16,9	17,4	17,9	18,3	19,0	19,5	19,8	20,0	20,0	19,6
XI	0	VII	0	8,0	8,5	9,1	9,7	10,3	11,0	11,7	12,4	13,1	13,7	14,4	15,0	15,6	16,2	16,7	17,2	17,7	18,1	18,5	19,2	19,6	19,9	20,0	19,9	19,4
X	24		6	8,0	8,6	9,2	9,9	10,6	11,3	12,0	12,7	13,4	14,0	14,7	15,3	15,9	16,5	17,0	17,5	18,0	18,4	18,7	19,3	19,7	20,0	20,0	19,8	19,3
	18		12	8,0	8,6	9,3	10,0	10,8	11,5	12,3	13,0	13,7	14,3	15,0	15,6	16,2	16,8	17,3	17,8	18,2	18,6	18,9	19,5	19,8	20,0	20,0	19,7	19,1
	12		18	8,0	8,7	9,5	10,2	11,0	11,7	12,5	13,2	13,9	14,6	15,3	15,9	16,5	17,0	17,5	18,0	18,4	18,8	19,1	19,6	19,9	20,0	19,9	19,6	18,9
	6		24	8,0	8,8	9,6	10,4	11,2	11,9	12,7	13,4	14,1	14,8	15,5	16,1	16,7	17,2	17,7	18,2	18,5	18,9	19,2	19,7	19,9	20,0	19,9	19,5	18,8
X	0	VIII	0	8,0	8,8	9,6	10,4	11,3	12,1	12,9	13,6	14,3	15,0	15,7	16,3	16,8	17,4	17,9	18,3	18,7	19,0	19,3	19,7	20,0	20,0	19,8	19,4	18,7
IX	24		6	8,0	8,8	9,7	10,5	11,4	12,2	13,0	13,7	14,5	15,1	15,8	16,4	17,0	17,5	18,0	18,4	18,8	19,1	19,4	19,8	20,0	20,0	19,7	19,3	18,6
	18		12	8,0	8,9	9,8	10,6	11,5	12,3	13,1	13,8	14,6	15,2	15,9	16,5	17,1	17,6	18,1	18,5	18,9	19,2	19,5	19,8	20,0	19,9	19,7	19,2	18,5
	12		18	8,0	8,9	9,8	10,7	11,6	12,4	13,2	13,9	14,7	15,3	16,0	16,6	17,2	17,6	18,1	18,5	18,9	19,2	19,5	19,8	20,0	19,9	19,7	19,1	18,4
	6		24	8,0	8,9	9,8	10,7	11,6	12,4	13,2	13,9	14,7	15,4	16,1	16,7	17,2	17,7	18,2	18,6	19,0	19,2	19,5	19,9	20,0	19,9	19,6	19,1	18,4
IX	0		30	8,0	8,9	9,9	10,7	11,6	12,4	13,3	14,0	14,8	15,4	16,1	16,7	17,2	17,7	18,2	18,6	19,0	19,3	19,5	19,9	20,0	19,9	19,6	19,1	18,3

Enter the Table with the Declination of the Star at Top, and its Right Aſcenſion on the Side if a Northern Star, or the oppoſite to its Right Aſcenſion if a Southern Star, and take out the Maximum of the Aberration in North Polar Diſtance; which, multiplied by the natural Coſine of the annual Argument of Aberration found by the preceding Table, will give the actual Aberration, which will be ſubtractive from or additive to the mean North Polar Diſtance, according as the annual Argument is leſs or more than 3 Signs.

TABLE XXX.

Semiannual Solar Equations of North Polar Diſtances of Stars.

Arg. 2 Long. ☉ — Star's Right Aſcenſion.

+		—					
S.	D.	S.	D.	"	S.	D.	S. D.
0	0	6	0	0,00	6	0	12 0
0	5	6	5	0,04	5	25	11 25
0	10	6	10	0,08	5	20	11 20
0	15	6	15	0,12	5	15	11 15
0	20	6	20	0,16	5	10	11 10
0	25	6	25	0,20	5	5	11 5
1	0	7	0	0,24	5	0	11 0
1	5	7	5	0,27	4	25	10 25
1	10	7	10	0,31	4	20	10 20
1	15	7	15	0,34	4	15	10 15
1	20	7	20	0,37	4	10	10 10
1	25	7	25	0,40	4	5	10 5
2	0	8	0	0,42	4	0	10 0
2	5	8	5	0,43	3	25	9 25
2	10	8	10	0,45	3	20	9 20
2	15	8	15	0,46	3	15	9 15
2	20	8	20	0,47	3	10	9 10
2	25	8	25	0,48	3	5	9 5
3	0	9	0	0,48	3	0	9 0
					+		—

TABLE XXXI.

Correction of the Obliquity of the Ecliptic for Days of the Year.

		"			"
January -	10	—0,4	July -	16	—0,6
	18	—0,3		26	—0,5
	25	—0,2			
	31	—0,1	Auguſt -	1	—0,4
				8	—0,3
February -	8	0,0		16	—0,2
	14	+0,1		21	—0,1
	21	+0,2		31	0,0
March -	2	+0,3	September	21	+0,1
	21	+0,4			
			October	11	0,0
April -	2	+0,3		19	—0,1
	13	+0,2		25	—0,2
	20	+0,1		31	—0,3
	26	0,0			
			November	6	—0,4
May -	2	—0,1		12	—0,5
	7	—0,2		17	—0,6
	13	—0,3		23	—0,7
	19	—0,4		30	—0,8
	26	—0,5			
			December	9	—0,9
June	3	—0,6		26	—1,0
	25	—0,7			

TABLE XXXII.

Equation of the Obliquity of the Ecliptic.

Argum. Long. ☽'s ☊.

Long. of ☽'s ☊.	0 S + / 6 S —	1 S + / 7 S —	2 S + / 8 S —	
D	"	"	"	D
0	9,5	8,3	4,8	30
1	9,5	8,2	4,6	29
2	9,5	8,1	4,5	28
3	9,5	8,0	4,3	27
4	9,5	7,9	4,2	26
5	9,5	7,8	4,0	25
6	9,5	7,7	3,9	24
7	9,5	7,6	3,7	23
8	9,5	7,5	3,6	22
9	9,4	7,4	3,4	21
10	9,4	7,3	3,3	20
11	9,4	7,2	3,1	19
12	9,3	7,1	3,0	18
13	9,3	7,0	2,8	17
14	9,3	6,9	2,6	16
15	9,2	6,8	2,5	15
16	9,2	6,6	2,3	14
17	9,1	6,5	2,1	13
18	9,1	6,4	2,0	12
19	9,0	6,3	1,8	11
20	9,0	6,1	1,7	10
21	8,9	6,0	1,5	9
22	8,9	5,9	1,3	8
23	8,8	5,7	1,2	7
24	8,7	5,6	1,0	6
25	8,7	5,5	0,8	5
26	8,6	5,3	0,7	4
27	8,5	5,2	0,5	3
28	8,4	5,1	0,3	2
29	8,4	4,9	0,2	1
30	8,3	4,8	0,0	0
	5 S —	4 S —	3 S —	
	11 S +	10 S +	9 S +	Long. of ☽'s ☊.

TABLE XXXIII.

Reduction of the Equator to the Ecliptic.

S.	0		6		1		7		2		8		S.	S.	0		6		1		7		2		8		S.
	+		diff.		+		diff.		+		diff.				+		diff.		+		diff.		+		diff.		
° ′	° ′	″	′	″	° ′	″	′	″	° ′	″	′	″	° ′	° ′	° ′	″	′	″	° ′	″	′	″	° ′	″	′	″	° ′
0. 0	0. 0. 0, 0		0. 54, 1		2. 11. 11, 7		0. 24, 6		2. 5. 39, 7		0. 27, 0		30. 0	5. 0	0. 26. 53, 6		0. 53, 1		2. 21. 21, 7		0. 15, 8		1. 50. 30, 0		0. 33, 7		25. 0
0. 10	0. 0. 54, 1		0. 54, 0		2. 11. 36, 3		0. 24, 2		2. 5. 12, 7		0. 27, 3		29. 50	5. 10	0. 27. 46, 7		0. 53, 0		2. 21. 37, 5		0. 15, 5		1. 49. 56, 3		0. 33, 9		24. 50
0. 20	0. 1. 48, 1		0. 54, 1		2. 12. 0, 5		0. 24, 0		2. 4. 45, 4		0. 27, 5		29. 40	5. 20	0. 28. 39, 7		0. 53, 0		2. 21. 53, 0		0. 15, 2		1. 49. 22, 4		0. 34, 1		24. 40
0. 30	0. 2. 42, 2		0. 54, 1		2. 12. 24, 5		0. 23, 7		2. 4. 17, 9		0. 27, 7		29. 30	5. 30	0. 29. 32, 7		0. 53, 0		2. 22. 8, 2		0. 14, 8		1. 48. 48, 3		0. 34, 3		24. 30
0. 40	0. 3. 36, 3		0. 54, 1		2. 12. 48, 2		0. 23, 4		2. 3. 50, 2		0. 28, 0		29. 20	5. 40	0. 30. 25, 7		0. 52, 9		2. 22. 23, 0		0. 14, 5		1. 48. 14, 0		0. 34, 5		24. 20
0. 50	0. 4. 30, 4		0. 54, 1		2. 13. 11, 6		0. 23, 1		2. 3. 22, 2		0. 28, 2		29. 10	5. 50	0. 31. 18, 6		0. 52, 8		2. 22. 37, 5		0. 14, 2		1. 47. 39, 5		0. 34, 7		24. 10
1. 0	0. 5. 24, 5		0. 54, 0		2. 13. 34, 7		0. 22, 8		2. 2. 54, 0		0. 28, 5		29. 0	6. 0	0. 32. 11, 4				2. 22. 51, 7		0. 13, 9		1. 47. 4, 8		0. 34, 9		24. 0
1. 10	0. 6. 18, 5		0. 54, 1		2. 13. 57, 5		0. 22, 5		2. 2. 25, 5		0. 28, 6		28. 50	6. 10	0. 33. 4, 2		0. 52, 6		2. 23. 5, 6		0. 13, 7		1. 46. 29, 9		0. 35, 1		23. 50
1. 20	0. 7. 12, 6		0. 54, 0		2. 14. 20, 0		0. 22, 2		2. 1. 56, 9		0. 28, 9		28. 40	6. 20	0. 33. 56, 8		0. 52, 6		2. 23. 19, 3		0. 13, 3		1. 45. 54, 8		0. 35, 2		23. 40
1. 30	0. 8. 6, 6		0. 54, 0		2. 14. 42, 2		0. 22, 0		2. 1. 28, 0		0. 29, 2		28. 30	6. 30	0. 34. 49, 4		0. 52, 5		2. 23. 32, 6		0. 13, 1		1. 45. 19, 6		0. 35, 5		23. 30
1. 40	0. 9. 0, 6		0. 54, 0		2. 15. 4, 2		0. 21, 6		2. 0. 58, 8		0. 29, 3		28. 20	6. 40	0. 35. 41, 9		0. 52, 4		2. 23. 45, 7		0. 12, 8		1. 44. 44, 1		0. 35, 7		23. 20
1. 50	0. 9. 54, 6		0. 54, 0		2. 15. 25, 8		0. 21, 4		2. 0. 29, 5		0. 29, 6		28. 10	6. 50	0. 36. 34, 3		0. 52, 3		2. 23. 58, 5		0. 12, 5		1. 44. 8, 4		0. 35, 9		23. 10
2. 0	0. 10. 48, 6		0. 53, 9		2. 15. 47, 2		0. 21, 1		1. 59. 59, 9		0. 29, 8		28. 0	7. 0	0. 37. 26, 6		0. 52, 2		2. 24. 11, 0		0. 12, 2		1. 43. 32, 5		0. 36, 1		23. 0
2. 10	0. 11. 42, 5		0. 53, 9		2. 16. 8, 3		0. 20, 8		1. 59. 30, 1		0. 30, 0		27. 50	7. 10	0. 38. 18, 8		0. 52, 1		2. 24. 23, 2		0. 11, 9		1. 42. 56, 4		0. 36, 3		22. 50
2. 20	0. 12. 36, 4		0. 53, 9		2. 16. 29, 1		0. 20, 5		1. 59. 0, 1		0. 30, 2		27. 40	7. 20	0. 39. 10, 9		0. 52, 0		2. 24. 35, 1		0. 11, 6		1. 42. 20, 1		0. 36, 5		22. 40
2. 30	0. 13. 30, 3		0. 53, 8		2. 16. 49, 6		0. 20, 2		1. 58. 29, 9		0. 30, 5		27. 30	7. 30	0. 40. 2, 9		0. 52, 0		2. 24. 46, 7		0. 11, 2		1. 41. 43, 6		0. 36, 6		22. 30
2. 40	0. 14. 24, 1		0. 53, 8		2. 17. 9, 8		0. 19, 9		1. 57. 59, 4		0. 30, 7		27. 20	7. 40	0. 40. 54, 9		0. 51, 8		2. 24. 57, 9		0. 10, 9		1. 41. 7, 0		0. 36, 8		22. 20
2. 50	0. 15. 17, 9		0. 53, 8		2. 17. 29, 7		0. 19, 6		1. 57. 28, 7		0. 30, 9		27. 10	7. 50	0. 41. 46, 7		0. 51, 8		2. 25. 8, 8		0. 10, 6		1. 40. 30, 2		0. 36, 9		22. 10
3. 0	0. 16. 11, 7		0. 53, 8		2. 17. 49, 3		0. 19, 4		1. 56. 57, 8		0. 31, 2		27. 0	8. 0	0. 42. 38, 5		0. 51, 7		2. 25. 19, 4		0. 10, 3		1. 39. 53, 3		0. 37, 2		22. 0
3. 10	0. 17. 5, 5		0. 53, 7		2. 18. 8, 7		0. 19, 0		1. 56. 26, 6		0. 31, 4		26. 50	8. 10	0. 43. 30, 2		0. 51, 6		2. 25. 29, 7		0. 10, 0		1. 39. 16, 1		0. 37, 4		21. 50
3. 20	0. 17. 59, 2		0. 53, 7		2. 18. 27, 7		0. 18, 8		1. 55. 55, 2		0. 31, 6		26. 40	8. 20	0. 44. 21, 8		0. 51, 5		2. 25. 39, 7		0. 9, 7		1. 38. 38, 7		0. 37, 6		21. 40
3. 30	0. 18. 52, 9		0. 53, 6		2. 18. 46, 5		0. 18, 4		1. 55. 23, 6		0. 31, 7		26. 30	8. 30	0. 45. 13, 3		0. 51, 3		2. 25. 49, 4		0. 9, 5		1. 38. 1, 1		0. 37, 7		21. 30
3. 40	0. 19. 46, 5		0. 53, 6		2. 19. 4, 9		0. 18, 1		1. 54. 51, 9		0. 32, 0		26. 20	8. 40	0. 46. 4, 6		0. 51, 3		2. 25. 58, 9		0. 9, 2		1. 37. 23, 4		0. 37, 9		21. 20
3. 50	0. 20. 40, 1		0. 53, 5		2. 19. 23, 0		0. 17, 8		1. 54. 19, 9		0. 32, 2		26. 10	8. 50	0. 46. 55, 9		0. 51, 1		2. 26. 8, 1		0. 8, 8		1. 36. 45, 5		0. 38, 1		21. 10
4. 0	0. 21. 33, 6		0. 53, 5		2. 19. 40, 8		0. 17, 5		1. 53. 47, 7		0. 32, 4		26. 0	9. 0	0. 47. 47, 0		0. 51, 1		2. 26. 16, 9		0. 8, 5		1. 36. 7, 4		0. 38, 2		21. 0
4. 10	0. 22. 27, 1		0. 53, 5		2. 19. 58, 3		0. 17, 2		1. 53. 15, 3		0. 32, 7		25. 50	9. 10	0. 48. 38, 1		0. 51, 0		2. 26. 25, 4		0. 8, 2		1. 35. 29, 2		0. 38, 4		20. 50
4. 20	0. 23. 20, 6		0. 53, 4		2. 20. 15, 5		0. 17, 0		1. 52. 42, 6		0. 32, 8		25. 40	9. 20	0. 49. 29, 1		0. 50, 8		2. 26. 33, 6		0. 7, 9		1. 34. 50, 8		0. 38, 7		20. 40
4. 30	0. 24. 14, 0		0. 53, 3		2. 20. 32, 5		0. 16, 7		1. 52. 9, 8		0. 33, 0		25. 30	9. 30	0. 50. 19, 9		0. 50, 7		2. 26. 41, 5		0. 7, 6		1. 34. 12, 1		0. 38, 8		20. 30
4. 40	0. 25. 7, 3		0. 53, 2		2. 20. 49, 2		0. 16, 3		1. 51. 36, 8		0. 33, 3		25. 20	9. 40	0. 51. 10, 6		0. 50, 6		2. 26. 49, 1		0. 7, 3		1. 33. 33, 3		0. 39, 0		20. 20
4. 50	0. 26. 0, 5		0. 53, 1		2. 21. 5, 6		0. 16, 2		1. 51. 3, 5		0. 33, 5		25. 10	9. 50	0. 52. 1, 2		0. 50, 4		2. 26. 56, 4		0. 7, 0		1. 32. 54, 3		0. 39, 1		20. 10
5. 0	0. 26. 53, 6				2. 21. 21, 7				1. 50. 30, 0				25. 0	10. 0	0. 52. 51, 6				2. 27. 3, 4				1. 32. 15, 2				20. 0
	—		diff.		—		diff.		—		diff.				—		diff.		—		diff.		—		diff.		
S.	5		11		4		10		3		9		S.	S.	5		11		4.		10		3		9		S.

TABLE

TABLE XXXIII. continued.

Reduction of the Equator to the Ecliptic.

S.	0 +	6 diff.	1 +	7 diff.	2 +	8 diff.	S.	S.	0 +	6 diff.	1 +	7 diff.	2 +	8 diff.	S.
° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′	° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′
10. 0	0. 52. 51,6	0. 50,3	2. 27. 3,4	0. 6,7	1. 32. 15,2	0. 39,3	20. 0	15. 0	1. 17. 0,9	0. 45,9	2. 28. 12,4	0. 2,4	1. 11. 28,1	0. 43,8	15. 0
10. 10	0. 53. 41,9	0. 50,2	2. 27. 10,1	0. 6,4	1. 31. 35,9	0. 39,4	19. 50	15. 10	1. 17. 46,8	0. 45,7	2. 28. 10,0	0. 2,7	1. 10. 44,3	0. 43,9	14. 50
10. 20	0. 54. 32,1	0. 50,1	2. 27. 16,5	0. 6,1	1. 30. 56,5	0. 39,7	19. 40	15. 20	1. 18. 32,5	0. 45,4	2. 28. 7,3	0. 2,9	1. 10. 0,4	0. 44,0	14. 40
10. 30	0. 55. 22,2	0. 50,0	2. 27. 22,6	0. 5,8	1. 30. 16,8	0. 39,8	19. 30	15. 30	1. 19. 17,9	0. 45,3	2. 28. 4,4	0. 3,3	1. 9. 16,4	0. 44,2	14. 30
10. 40	0. 56. 12,2	0. 49,9	2. 27. 28,4	0. 5,5	1. 29. 37,0	0. 40,0	19. 20	15. 40	1. 20. 3,2	0. 45,1	2. 28. 1,1	0. 3,6	1. 8. 32,2	0. 44,3	14. 20
10. 50	0. 57. 2,1	0. 49,7	2. 27. 33,9	0. 5,2	1. 28. 57,0	0. 40,2	19. 10	15. 50	1. 20. 48,3	0. 45,0	2. 27. 57,5	0. 3,9	1. 7. 47,9	0. 44,4	14. 10
11. 0	0. 57. 51,8	0. 49,5	2. 27. 39,1	0. 4,9	1. 28. 16,8	0. 40,3	19. 0	16. 0	1. 21. 33,3	0. 44,8	2. 27. 53,6	0. 4,2	1. 7. 3,5	0. 44,6	14. 0
11. 10	0. 58. 41,3	0. 49,4	2. 27. 44,0	0. 4,6	1. 27. 36,5	0. 40,4	18. 50	16. 10	1. 22. 18,1	0. 44,6	2. 27. 49,4	0. 4,5	1. 6. 18,9	0. 44,7	13. 50
11. 20	0. 59. 30,7	0. 49,3	2. 27. 48,6	0. 4,3	1. 26. 56,1	0. 40,6	18. 40	16. 20	1. 23. 2,7	0. 44,3	2. 27. 44,9	0. 4,8	1. 5. 34,2	0. 44,7	13. 40
11. 30	1. 0. 20,0	0. 49,2	2. 27. 52,9	0. 3,9	1. 26. 15,5	0. 40,8	18. 30	16. 30	1. 23. 47,0	0. 44,2	2. 27. 40,1	0. 5,0	1. 4. 49,5	0. 44,9	13. 30
11. 40	1. 1. 9,2	0. 49,1	2. 27. 56,8	0. 3,6	1. 25. 34,7	0. 41,0	18. 20	16. 40	1. 24. 31,2	0. 44,0	2. 27. 35,1	0. 5,3	1. 4. 4,6	0. 45,0	13. 20
11. 50	1. 1. 58,3	0. 48,9	2. 28. 0,4	0. 3,3	1. 24. 53,7	0. 41,1	18. 10	16. 50	1. 25. 15,2	0. 43,9	2. 27. 29,8	0. 5,7	1. 3. 19,6	0. 45,0	13. 10
12. 0	1. 2. 47,2	0. 48,7	2. 28. 3,7	0. 3,0	1. 24. 12,6	0. 41,3	18. 0	17. 0	1. 25. 59,1	0. 43,6	2. 27. 24,1	0. 5,9	1. 2. 34,6	0. 45,2	13. 0
12. 10	1. 3. 35,9	0. 48,6	2. 28. 6,7	0. 2,7	1. 23. 31,3	0. 41,4	17. 50	17. 10	1. 26. 42,7	0. 43,4	2. 27. 18,2	0. 6,2	1. 1. 49,4	0. 45,3	12. 50
12. 20	1. 4. 24,5	0. 48,5	2. 28. 9,4	0. 2,4	1. 22. 49,9	0. 41,5	17. 40	17. 20	1. 27. 26,1	0. 43,1	2. 27. 12,0	0. 6,5	1. 1. 4,1	0. 45,5	12. 40
12. 30	1. 5. 13,0	0. 48,2	2. 28. 11,8	0. 2,2	1. 22. 8,4	0. 41,7	17. 30	17. 30	1. 28. 9,2	0. 43,1	2. 27. 5,5	0. 6,9	1. 0. 18,6	0. 45,6	12. 30
12. 40	1. 6. 1,2	0. 48,2	2. 28. 14,0	0. 1,9	1. 21. 26,7	0. 41,8	17. 20	17. 40	1. 28. 52,3	0. 42,9	2. 26. 58,6	0. 7,2	0. 59. 33,0	0. 45,7	12. 20
12. 50	1. 6. 49,4	0. 48,0	2. 28. 15,9	0. 1,6	1. 20. 44,9	0. 42,0	17. 10	17. 50	1. 29. 35,2	0,42,7	2. 26. 51,4	0. 7,4	0. 58. 47,3	0. 45,7	12. 10
13. 0	1. 7. 37,4	0. 47,7	2. 28. 17,5	0. 1,3	1. 20. 2,9	0. 42,1	17. 0	18. 0	1. 30. 17,9	0. 42,4	2. 26. 44,0	0. 7,7	0. 58. 1,6	0. 45,9	12. 0
13. 10	1. 8. 25,1	0. 47,6	2. 28. 18,8	0. 1,0	1. 19. 20,8	0. 42,2	16. 50	18. 10	1. 31. 0,3	0. 42,2	2. 26. 36,3	0. 8,0	0. 57. 15,7	0. 46,0	11. 50
13. 20	1. 9. 12,7	0. 47,6	2. 28. 19,8	0. 0,6	1. 18. 38,6	0. 42,4	16. 40	18. 20	1. 31. 42,5	0. 42,1	2. 26. 28,3	0. 8,3	0. 56. 29,7	0. 46,1	11. 40
13. 30	1. 10. 0,3	0. 47,5	2. 28. 20,4	0. 0,3	1. 17. 56,2	0. 42,6	16. 30	18. 30	1. 32. 24,6	0. 41,8	2. 26. 20,0	0. 8,6	0. 55. 43,6	0. 46,2	11. 30
13. 40	1. 10. 47,8	0. 47,3	2. 28. 20,7	0. 0,0	1. 17. 13,6	0. 42,7	16. 20	18. 40	1. 33. 6,4	0. 41,6	2. 26. 11,4	0. 8,9	0. 54. 57,4	0. 46,3	11. 20
13. 50	1. 11. 35,1	0. 47,0	2. 28. 20,7	0. 0,3	1. 16. 30,9	0. 42,9	16. 10	18. 50	1. 33. 48,0	0. 41,4	2. 26. 2,5	0. 9,1	0. 54. 11,1	0. 46,3	11. 10
14. 0	1. 12. 22,1	0. 46,9	2. 28. 20,4	0. 0,6	1. 15. 48,0	0. 43,0	16. 0	19. 0	1. 34. 29,4	0. 41,2	2. 25. 53,4	0. 9,4	0. 53. 24,8	0. 46,5	11. 0
14. 10	1. 13. 9,0	0. 46,7	2. 28. 19,8	0. 0,9	1. 15. 5,0	0. 43,1	15. 50	19. 10	1. 35. 10,6	0. 41,0	2. 25. 44,0	0. 9,7	0. 52. 38,3	0. 46,6	10. 50
14. 20	1. 13. 55,7	0. 46,6	2. 28. 18,9	0. 1,2	1. 14. 21,9	0. 43,2	15. 40	19. 20	1. 35. 51,6	0. 40,7	2. 25. 34,3	0. 10,1	0. 51. 51,7	0. 46,7	10. 40
14. 30	1. 14. 42,3	0. 46,4	2. 28. 17,7	0. 1,5	1. 13. 38,7	0. 43,4	15. 30	19. 30	1. 36. 32,3	0. 40,5	2. 25. 24,2	0. 10,3	0. 51. 5,0	0. 46,7	10. 30
14. 40	1. 15. 28,7	0. 46,2	2. 28. 16,2	0. 1,7	1. 12. 55,3	0. 43,5	15. 20	19. 40	1. 37. 12,8	0. 40,3	2. 25. 13,9	0. 10,6	0. 50. 18,3	0. 46,8	10. 20
14. 50	1. 16. 14,9	0. 46,0	2. 28. 14,5	0. 2,1	1. 12. 11,8	0. 43,7	15. 10	19. 50	1. 37. 53,1	0. 40,2	2. 25. 3,3	0. 10,9	0. 49. 31,5	0. 47,0	10. 10
15. 0	1. 17. 0,9		2. 28. 12,4		1. 11. 28,1		15. 0	20. 0	1. 38. 33,3		2. 24. 52,4		0. 48. 44,5		10. 0
	—	diff.	—	diff.	—	diff.			—	diff.	—	diff.	—	diff.	
S.	5	11	4	10	3	9	S.	S.	5	11	4	10	3	9	S.

TABLE

TABLE XXXIII. continued.

Reduction of the Equator to the Ecliptic.

S.	0	6	diff.	1	7	diff.	2	8	diff.	S.
	+			+			+			
° ′	° ′ ″	″	″	° ′ ″	″	″	° ′ ″	″	″	° ′
20. 0	1. 38. 33,3		0. 39,8	2. 24. 52,4		0. 11,2	0. 48. 44,5		0. 47,0	10. 0
20. 10	1. 39. 13,1		0. 39,6	2. 24. 41,2		0. 11,5	0. 47. 57,5		0. 47,1	9. 50
20. 20	1. 39. 52,7		0. 39,5	2. 24. 29,7		0. 11,8	0. 47. 10,4		0. 47,2	9. 40
20. 30	1. 40. 32,2		0. 39,2	2. 24. 17,9		0. 12,0	0. 46. 23,2		0. 47,3	9. 30
20. 40	1. 41. 11,4		0. 39,0	2. 24. 5,9		0. 12,3	0. 45. 35,9		0. 47,4	9. 20
20. 50	1. 41. 50,4			2. 23. 53,6			0. 44. 48,5			9. 10
			0. 38,8			0. 12,6			0. 47,4	
21. 0	1. 42. 29,2		0. 38,5	2. 23. 41,0		0. 12,9	0. 44. 1,1		0. 47,5	9. 0
21. 10	1. 43. 7,7		0. 38,3	2. 23. 28,1		0. 13,2	0. 43. 13,6		0. 47,6	8. 50
21. 20	1. 43. 46,0		0. 38,2	2. 23. 14,9		0. 13,4	0. 42. 26,0		0. 47,8	8. 40
21. 30	1. 44. 24,2		0. 37,8	2. 23. 1,5		0. 13,7	0. 41. 38,2		0. 47,7	8. 30
21. 40	1. 45. 2,0		0. 37,6	2. 22. 27,8		0. 14,0	0. 40. 50,5		0. 47,8	8. 20
21. 50	1. 45. 39,6			2. 22. 33,8			0. 40. 2,7			8. 10
			0. 37,3			0. 14,3			0. 47,9	
22. 0	1. 46. 16,9		0. 37,1	2. 22. 19,5		0. 14,5	0. 39. 14,8		0. 47,9	8. 0
22. 10	1. 46. 54,0		0. 36,9	2. 22. 5,0		0. 14,8	0. 38. 26,9		0. 48,0	7. 50
22. 20	1. 47. 30,9		0. 36,7	2. 21. 50,2		0. 15,1	0. 37. 38,9		0. 48,2	7. 40
22. 30	1. 48. 7,6		0. 36,3	2. 21. 35,1		0. 15,4	0. 36. 50,7		0. 48,1	7. 30
22. 40	1. 48. 43,9		0. 36,1	2. 21. 19,7		0. 15,7	0. 36. 2,6		0. 48,2	7. 20
22. 50	1. 49. 20,0			2. 21. 4,0			0. 35. 14,4			7. 10
			0. 36,0			0. 16,0			0. 48,3	
23. 0	1. 49. 56,0		0. 35,6	2. 20. 48,0		0. 16,2	0. 34. 26,1		0. 48,3	7. 0
23. 10	1. 50. 31,6		0. 35,4	2. 20. 31,8		0. 16,5	0. 33. 37,8		0. 48,4	6. 50
23. 20	1. 51. 7,0		0. 35,3	2. 20. 15,3		0. 16,9	0. 32. 49,4		0. 48,6	6. 40
23. 30	1. 51. 42,3		0. 34,9	2. 19. 58,4		0. 17,0	0. 32. 0,8		0. 48,5	6. 30
23. 40	1. 52. 17,2		0. 34,7	2. 19. 41,4		0. 17,3	0. 31. 12,3		0. 48,6	6. 20
23. 50	1. 52. 51,9			2. 19. 24,1			0. 30. 23,7			6. 10
			6. 34,6			0. 17,6			0. 48,7	
24. 0	1. 53. 26,5		0. 34,1	2. 19. 6,5		0. 17,8	0. 29. 35,0		0. 48,7	6. 0
24. 10	1. 54. 0,6		0. 33,9	2. 18. 48,7		0. 18,1	0. 28. 46,3		0. 48,8	5. 50
24. 20	1. 54. 34,5		0. 33,8	2. 18. 30,6		0. 18,5	0. 27. 57,5		0. 48,8	5. 40
24. 30	1. 55. 8,3		0. 33,5	2. 18. 12,1		0. 18,6	0. 27. 8,7		0. 48,9	5. 30
24. 40	1. 55. 41,8		0. 33,2	2. 17. 53,5		0. 18,9	0. 26. 19,8		0. 48,9	5. 20
24. 50	1. 56. 15,0		0. 32,9	2. 17. 34,6		0. 19,3	0. 25. 30,9		0. 48,9	5. 10
25. 0	1. 56. 47,9			2. 17. 15,3			0. 24. 42,1		0. 48,8	5. 0
	—		diff.	—		diff.	—		diff.	
S.	5		11	4		10	3		9	S.

S.	0	6	1	7	2	8	S.
	+	diff.	+	diff.	+	diff.	
° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′
25. 0	1. 56. 47,9	0. 32,6	2. 17. 15,3	0. 19,4	0. 24. 42,1	0. 49,0	5. 0
25. 10	1. 57. 20,5	0. 32,4	2. 16. 55,9	0. 19,7	0. 23. 53,1	0. 49,0	4. 50
25. 20	1. 57. 52,9	0. 32,1	2. 16. 36,2	0. 20,0	0. 23. 4,1	0. 49,1	4. 40
25. 30	1. 58. 25,0	0. 32,0	2. 16. 16,2	0. 20,2	0. 22. 15,0	0. 49,1	4. 30
25. 40	1. 58. 57,0	0. 31,7	2. 15. 56,0	0. 20,5	0. 21. 25,9	0. 49,1	4. 20
25. 50	1. 59. 28,7		2. 15. 35,5		0. 20. 36,8		4. 10
		0. 31,3		0. 20,8		0. 49,2	
26. 0	2. 0. 0,0	0. 31,2	2. 15. 14,7	0. 21,0	0. 19. 47,6	0. 49,3	4. 0
26. 10	2. 0. 31,2	0. 30,9	2. 14. 53,7	0. 21,3	0. 18. 58,3	0. 49,3	3. 50
26. 20	2. 1. 2,1	0. 30,5	2. 14. 32,4	0. 21,7	0. 18. 9,0	0. 49,2	3. 40
26. 30	2. 1. 32,6	0. 30,3	2. 14. 10,7	0. 21,8	0. 17. 19,8	0. 49,3	3. 30
26. 40	2. 2. 2,9	0. 30,0	2. 13. 48,9	0. 22,1	0. 16. 30,5	0. 49,3	3. 20
26. 50	2. 2. 32,9		2. 13. 26,8		0. 15. 41,2		3. 10
		0. 29,7		0. 22,4		0. 49,4	
27. 0	2. 3. 2,6	0. 29,6	2. 13. 4,4	0. 22,6	0. 14. 51,8	0. 49,4	3. 0
27. 10	2. 3. 32,2	0. 29,3	2. 12. 41,8	0. 22,8	0. 14. 2,4	0. 49,4	2. 50
27. 20	2. 4. 1,5	0. 28,9	2. 12. 19,0	0. 23,1	0. 13. 13,0	0. 49,4	2. 40
27. 30	2. 4. 30,4	0. 28,7	2. 11. 55,9	0. 23,4	0. 12. 23,6	0. 49,5	2. 30
27. 40	2. 4. 59,1	0. 28,4	2. 11. 32,5	0. 23,6	0. 11. 34,1	0. 49,5	2. 20
27. 50	2. 5. 27,5		2. 11. 8,9		0. 10. 44,6		2. 10
		0. 28,1		0. 23,8		0. 49,5	
28. 0	2. 5. 55,6	0. 27,9	2. 10. 45,1	0. 24,1	0. 9. 55,1	0. 49,5	2. 0
28. 10	2. 6. 23,5	0. 27,6	2. 10. 21,0	0. 24,3	0. 9. 5,6	0. 49,5	1. 50
28. 20	2. 6. 51,1	0. 27,3	2. 9. 56,7	0. 24,6	0. 8. 16,1	0. 49,6	1. 40
28. 30	2. 7. 18,4	0. 27,1	2. 9. 32,1	0. 24,9	0. 7. 26,5	0. 49,6	1. 30
28. 40	2. 7. 45,5	0. 26,8	2. 9. 7,2	0. 25,1	0. 6. 36,9	0. 49,6	1. 20
28. 50	2. 8. 12,3		2. 8. 42,1		0. 5. 47,3		1. 10
		0. 26,4		0. 25,2		0. 49,6	
29. 0	2. 8. 38,7	0. 26,2	2. 8. 16,9	0. 25,6	0. 4. 57,7	0. 49,6	1. 0
29. 10	2. 9. 4,9	0. 25,9	2. 7. 51,3	0. 25,8	0. 4. 8,1	0. 49,6	0. 50
29. 20	2. 9. 30,8	0. 25,7	2. 7. 25,5	0. 26,1	0. 3. 18,5	0. 49,6	0. 40
29. 30	2. 9. 56,5	0. 25,4	2. 6. 59,4	0. 26,4	0. 2. 28,9	0. 49,6	0. 30
29. 40	2. 10. 21,9	0. 25,1	2. 6. 33,0	0. 26,5	0. 1. 39,3	0. 49,6	0. 20
29. 50	2. 10. 47,0	0. 24,8	2. 6. 6,5	0. 26,8	0. 0. 49,7	0. 49,7	0. 10
30. 0	2. 11. 11,8		2. 5. 39,7		0. 0. 0,0		0. 0
	—	diff.	—	diff.	—	diff.	
S.	5	11	4	10	3	9	S.

TABLE XXXIV.

Declination of the Points of the Ecliptic.

Sig.	0 S	6 N	1 S	7 N	2 S	8 N	Sig.	Sig.	0 S	6 N	1 S	7 N	2 S	8 N	Sig.
	Declinat.	diff.	Declinat.	diff.	Declinat.	diff.			Declinat.	diff.	Declinat.	diff.	Declinat.	diff.	
° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′	° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′
0. 0	0. 0. 0,0	3. 59,0	11. 29. 5,3	3. 31,0	20. 10. 24,7	2. 7,0	30. 0	5. 0	1. 59. 20,2	3. 58,2	13. 12. 11,9	3. 20,9	21. 9. 21,0	1. 48,0	25. 0
0. 10	0. 3. 59,0	3. 59,0	11. 32. 36,3	3. 30,7	20. 12. 31,7	2. 6,4	29. 50	5. 10	2. 3. 18,4	3. 58,1	13. 15. 32,8	3. 20,5	21. 11. 9,0	1. 47,3	24. 50
0. 20	0. 7. 58,0	3. 58,9	11. 36. 7,0	3. 30,3	20. 14. 38,1	2. 5,7	29. 40	5. 20	2. 7. 16,5	3. 58,1	13. 18. 53,3	3. 20,0	21. 12. 56,3	1. 46,6	24. 40
0. 30	0. 11. 56,9	3. 58,9	11. 39. 37,3	3. 30,0	20. 16. 43,8	2. 5,1	29. 30	5. 30	2. 11. 14,6	3. 58,0	13. 22. 13,3	3. 19,8	21. 14. 42,9	1. 46,0	24. 30
0. 40	0. 15. 55,8	3. 58,9	11. 43. 7,3	3. 29,7	20. 18. 48,9	2. 4,5	29. 20	5. 40	2. 15. 12,6	3. 57,9	13. 25. 33,1	3. 19,4	21. 16. 28,9	1. 45,3	24. 20
0. 50	0. 19. 54,7	3. 58,9	11. 46. 37,0	3. 29,5	20. 20. 53,4	2. 3,9	29. 10	5. 50	2. 19. 10,5	3. 57,8	13. 28. 52,5	3. 19,0	21. 18. 14,2	1. 44,6	24. 10
1. 0	0. 23. 53,6	3. 58,9	11. 50. 6,5	3. 29,1	20. 22. 57,3	2. 3,2	29. 0	6. 0	2. 23. 8,3	3. 57,8	13. 32. 11,5	3. 18,7	21. 19. 58,8	1. 44,1	24. 0
1. 10	0. 27. 52,5	3. 58,9	11. 53. 35,6	3. 28,8	20. 25. 0,5	2. 2,6	28. 50	6. 10	2. 27. 6,1	3. 57,7	13. 35. 30,2	3. 18,3	21. 21. 42,9	1. 43,4	23. 50
1. 20	0. 31. 51,4	3. 58,8	11. 57. 4,4	3. 28,4	20. 27. 3,1	2. 2,1	28. 40	6. 20	2. 31. 3,8	3. 57,7	13. 38. 48,5	3. 17,8	21. 23. 26,3	1. 42,6	23. 40
1. 30	0. 35. 50,2	3. 58,8	12. 0. 32,8	3. 28,1	20. 29. 5,2	2. 1,4	28. 30	6. 30	2. 35. 1,5	3. 57,6	13. 42. 6,3	3. 17,5	21. 25. 8,9	1. 42,0	23. 30
1. 40	0. 39. 49,0	3. 58,8	12. 4. 0,9	3. 27,8	20. 31. 6,6	2. 0,8	28. 20	6. 40	2. 38. 59,1	3. 57,5	13. 45. 23,8	3. 17,1	21. 26. 50,9	1. 41,3	23. 20
1. 50	0. 43. 47,8	3. 58,8	12. 7. 28,7	3. 27,4	20. 33. 7,4	2. 0,1	28. 10	6. 50	2. 42. 56,6	3. 57,4	13. 48. 40,9	3. 16,8	21. 28. 32,2	1. 40,7	23. 10
2. 0	0. 47. 46,6	3. 58,8	12. 10. 56,1	3. 27,1	20. 35. 7,5	1. 59,5	28. 0	7. 0	2. 46. 54,0	3. 57,5	13. 51. 57,7	3. 16,4	21. 30. 12,9	1. 40,1	23. 0
2. 10	0. 51. 45,4	3. 58,8	12. 14. 23,2	3. 26,8	20. 37. 7,0	1. 58,9	27. 50	7. 10	2. 50. 51,5	3. 57,4	13. 55. 14,1	3. 16,0	21. 31. 53,0	1. 39,4	22. 50
2. 20	0. 55. 44,2	3. 58,7	12. 17. 50,0	3. 26,5	20. 39. 5,9	1. 58,3	27. 40	7. 20	2. 54. 48,9	3. 57,2	13. 58. 30,1	3. 15,5	21. 33. 32,4	1. 38,6	22. 40
2. 30	0. 59. 42,9	3. 58,7	12. 21. 16,5	3. 26,1	20. 41. 4,2	1. 57,6	27. 30	7. 30	2. 58. 46,1	3. 57,2	14. 1. 45,6	3. 15,2	21. 35. 11,0	1. 38,0	22. 30
2. 40	1. 3. 41,6	3. 58,7	12. 24. 42,6	3. 25,8	20. 43. 1,8	1. 57,0	27. 20	7. 40	3. 2. 43,3	3. 57,1	14. 5. 0,8	3. 14,8	21. 36. 49,0	1. 37,3	22. 20
2. 50	1. 7. 40,3	3. 58,8	12. 28. 8,4	3. 25,4	20. 44. 58,8	1. 56,3	27. 10	7. 50	3. 6. 40,4	3. 56,9	14. 8. 15,6	3. 14,3	21. 38. 26,3	1. 36,6	22. 10
3. 0	1. 11. 39,1	3. 58,6	12. 31. 33,8	3. 25,0	20. 46. 55,1	1. 55,6	27. 0	8. 0	3. 10. 37,3	3. 57,0	14. 11. 29,9	3. 14,0	21. 40. 2,9	1. 36,0	22. 0
3. 10	1. 15. 37,7	3. 58,6	12. 34. 58,8	3. 24,7	20. 48. 50,7	1. 55,0	26. 50	8. 10	3. 14. 34,3	3. 56,9	14. 14. 43,9	3. 13,6	21. 41. 38,9	1. 35,3	21. 50
3. 20	1. 19. 36,3	3. 58,6	12. 38. 23,5	3. 24,5	20. 50. 45,7	1. 54,5	26. 40	8. 20	3. 18. 31,2	3. 56,7	14. 17. 57,5	3. 13,1	21. 43. 14,2	1. 34,5	21. 40
3. 30	1. 23. 34,9	3. 58,5	12. 41. 48,0	3. 24,0	20. 52. 40,2	1. 53,8	26. 30	8. 30	3. 22. 27,9	3. 56,7	14. 21. 10,6	3. 12,9	21. 44. 48,7	1. 34,0	21. 30
3. 40	1. 27. 33,4	3. 58,5	12. 45. 12,0	3. 23,7	20. 54. 34,0	1. 53,2	26. 20	8. 40	3. 26. 24,6	3. 56,6	14. 24. 23,5	3. 12,5	21. 46. 22,7	1. 33,3	21. 20
3. 50	1. 31. 31,9	3. 58,5	12. 48. 35,7	3. 23,5	20. 56. 27,2	1. 52,5	26. 10	8. 50	3. 30. 21,2	3. 56,4	14. 27. 36,0	3. 12,0	21. 47. 56,0	1. 32,5	21. 10
4. 0	1. 35. 30,4	3. 58,4	12. 51. 59,2	3. 23,0	20. 58. 19,7	1. 51,9	26. 0	9. 0	3. 34. 17,6	3. 56,4	14. 30. 48,0	3. 11,6	21. 49. 28,5	1. 31,9	21. 0
4. 10	1. 39. 28,8	3. 58,4	12. 55. 22,2	3. 22,7	21. 0. 11,6	1. 51,2	25. 50	9. 10	3. 38. 14,0	3. 56,3	14. 33. 59,6	3. 11,2	21. 51. 0,4	1. 31,2	20. 50
4. 20	1. 43. 27,2	3. 58,3	12. 58. 44,9	3. 22,3	21. 2. 2,8	1. 50,5	25. 40	9. 20	3. 42. 10,3	3. 56,1	14. 37. 10,8	3. 10,8	21. 52. 31,6	1. 30,4	20. 40
4. 30	1. 47. 25,5	3. 58,2	13. 2. 7,2	3. 21,9	21. 3. 53,3	1. 49,9	25. 30	9. 30	3. 46. 6,4	3. 56,1	14. 40. 21,6	3. 10,4	21. 54. 2,0	1. 29,9	20. 30
4. 40	1. 51. 23,7	3. 58,2	13. 5. 29,1	3. 21,6	21. 5. 43,2	1. 49,2	25. 20	9. 40	3. 50. 2,5	3. 56,0	14. 43. 32,0	3. 10,0	21. 55. 31,9	1. 29,2	20. 20
4. 50	1. 55. 21,9	3. 58,3	13. 8. 50,7	3. 21,2	21. 7. 32,4	1. 48,6	25. 10	9. 50	3. 53. 58,5	3. 56,0	14. 46. 42,0	3. 9,5	21. 57. 1,1	1. 28,5	20. 10
5. 0	1. 59. 20,2		13. 12. 11,9		21. 9. 21,0		25. 0	10. 0	3. 57. 54,5		14. 49. 51,5		21. 58. 29,6		20. 0
	Decl.	diff.	Decl.	diff.	Decl.	diff.			Decl.	diff.	Decl.	diff.	Decl.	diff.	
Sig.	5 S	11 N	4 S	10 N	3 S	9 N	Sig.	Sig.	5 S	11 N	4 S	10 N	3 S	9 N	Sig.

TABLE

TABLE XXXIV. continued.

Declination of the Points of the Ecliptic.

Sig.	0 S	6 N	1 S	7 N	2 S	8 N	Sig.	Sig.	0 S	6 N	1 S	7 N	2 S	8 N	Sig.
	Declinat.	diff.	Declinat.	diff.	Declinat.	diff.			Declinat.	diff.	Declinat.	diff.	Declinat.	diff.	
° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′	° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′
10. 0	3. 57. 54,5	3. 55,8	14. 49. 51,5	3. 9,1	21. 58. 29,6	1. 27,8	20. 0	15. 0	5. 54. 56,6	3. 52,0	16. 21. 16,5	2. 55,9	22. 37. 18,5	1. 6,6	15. 0
10. 10	4. 1. 50,3	3. 55,7	14. 53. 0,6	3. 8,7	21. 59. 57,4	1. 27,1	19. 50	15. 10	5. 58. 48,6	3. 51,8	16. 24. 12,4	2. 55,4	22. 38. 25,1	1. 5,9	14. 50
10. 20	4. 5. 46,0	3. 55,7	14. 56. 9,3	3. 8,2	22. 1. 24,5	1. 26,3	19. 40	15. 20	6. 2. 40,4	3. 51,7	16. 27. 7,8	2. 54,8	22. 39. 31,0	1. 5,2	14. 40
10. 30	4. 9. 41,7	3. 55,5	14. 59. 17,5	3. 7,9	22. 2. 50,8	1. 25,7	19. 30	15. 30	6. 6. 32,1	3. 51,4	16. 30. 2,6	2. 54,5	22. 40. 36,2	1. 4,5	14. 30
10. 40	4. 13. 37,2	3. 55,4	15. 2. 25,4	3. 7,5	22. 4. 16,5	1. 25,0	19. 20	15. 40	6. 10. 23,5	3. 51,3	16. 32. 57,1	2. 54,0	22. 41. 40,7	1. 3,8	14. 20
10. 50	4. 17. 32,6		15. 5. 32,9		22. 5. 41,5		19. 10	15. 50	6. 14. 14,8		16. 35. 51,1		22. 42. 44,5		14. 10
		3. 55,2		3. 7,0		1. 24,4				3. 51,2		2. 53,4		1. 3,0	
11. 0	4. 21. 27,8	3. 55,2	15. 8. 39,9	3. 6,6	22. 7. 5,9	1. 23,7	19. 0	16. 0	6. 18. 6,0	3. 51,0	16. 38. 44,5	2. 53,0	22. 43. 47,5	1. 2,3	14. 0
11. 10	4. 25. 23,0	3. 55,1	15. 11. 46,5	3. 6,2	22. 8. 29,6	1. 23,0	18. 50	16. 10	6. 21. 57,0	3. 50,8	16. 41. 37,5	2. 52,5	22. 44. 49,8	1. 1,6	13. 50
11. 20	4. 29. 18,1	3. 55,1	15. 14. 52,7	3. 5,7	22. 9. 52,6	1. 22,2	18. 40	16. 20	6. 25. 47,8	3. 50,7	16. 44. 30,0	2. 52,0	22. 45. 51,4	1. 0,9	13. 40
11. 30	4. 33. 13,0	3. 54,8	15. 17. 58,4	3. 5,3	22. 11. 14,8	1. 21,5	18. 30	16. 30	6. 29. 38,5	3. 50,5	16. 47. 22,0	2. 51,6	22. 46. 52,3	1. 0,1	13. 30
11. 40	4. 37. 7,8	3. 54,7	15. 21. 3,7	3. 4,9	22. 12. 36,3	1. 20,8	18. 20	16. 40	6. 33. 29,0	3. 50,3	16. 50. 13,6	2. 51,1	22. 47. 52,4	0. 59,4	13. 20
11. 50	4. 41. 2,5		15. 24. 8,6		22. 13. 57,1		18. 10	16. 50	6. 37. 19,3		16. 53. 4,7		22. 48. 51,8		13. 10
		3. 54,5		3. 4,5		1. 20,1				3. 50,1		2. 50,5		0. 58,7	
12. 0	4. 44. 57,0	3. 54,4	15. 27. 13,1	3. 3,9	22. 15. 17,2	1. 19,4	18. 0	17. 0	6. 41. 9,4	3. 50,0	16. 55. 55,2	2. 50,1	22. 49. 50,5	0. 57,9	13. 0
12. 10	4. 48. 51,4	3. 54,3	15. 30. 17,0	3. 3,5	22. 16. 36,6	1. 18,7	17. 50	17. 10	6. 44. 59,4	3. 49,8	16. 58. 45,3	2. 49,6	22. 50. 48,4	0. 57,2	12. 50
12. 20	4. 52. 45,7	3. 54,3	15. 33. 20,5	3. 3,2	22. 17. 55,3	1. 17,9	17. 40	17. 20	6. 48. 49,2	3. 49,5	17. 1. 34,9	2. 49,0	22. 51. 45,6	0. 56,6	12. 40
12. 30	4. 56. 40,0	3. 54,0	15. 36. 23,7	3. 2,6	22. 19. 13,2	1. 17,3	17. 30	17. 30	6. 52. 38,7	3. 49,5	17. 4. 23,9	2. 48,6	22. 52. 42,2	0. 55,7	12. 30
12. 40	5. 0. 34,0	3. 53,9	15. 39. 26,3	3. 2,2	22. 20. 30,5	1. 16,6	17. 20	17. 40	6. 56. 28,2	3. 49,3	17. 7. 12,5	2. 48,1	22. 53. 37,9	0. 55,0	12. 20
12. 50	5. 4. 27,9		15. 42. 28,5		22. 21. 47,1		17. 10	17. 50	7. 0. 17,5		17. 10. 0,6		22. 54. 32,9		12. 10
		3. 53,9		3. 1,9		1. 16,0				3. 49,0		2. 47,7		0. 54,4	
13. 0	5. 8. 21,8	3. 53,8	15. 45. 30,4	3. 1,3	22. 23. 3,1	1. 15,2	17. 0	18. 0	7. 4. 6,5	3. 48,9	17. 12. 48,3	2. 47,3	22. 55. 27,3	0. 53,5	12. 0
13. 10	5. 12. 15,6	3. 53,6	15. 48. 31,7	3. 0,9	22. 24. 18,3	1. 14,5	16. 50	18. 10	7. 7. 55,4	3. 48,7	17. 15. 35,6	2. 46,8	22. 56. 20,8	0. 52,8	11. 50
13. 20	5. 16. 9,2	3. 53,3	15. 51. 32,6	3. 0,5	22. 25. 32,8	1. 13,7	16. 40	18. 20	7. 11. 44,1	3. 48,4	17. 18. 22,4	2. 46,2	22. 57. 13,6	0. 52,2	11. 40
13. 30	5. 20. 2,5	3. 53,2	15. 54. 33,1	2. 59,9	22. 26. 46,5	1. 13,1	16. 30	18. 30	7. 15. 32,5	3. 48,4	17. 21. 8,6	2. 45,5	22. 58. 5,8	0. 51,3	11. 30
13. 40	5. 23. 55,7	3. 53,1	15. 57. 33,0	2. 59,5	22. 27. 59,6	1. 12,4	16. 20	18. 40	7. 19. 20,9	3. 48,2	17. 23. 54,1	2. 45,0	22. 58. 57,1	0. 50,6	11. 20
13. 50	5. 27. 48,8		16. 0. 32,5		22. 29. 12,0		16. 10	18. 50	7. 23. 9,1		17. 26. 39,1		22. 59. 47,7		11. 10
		3. 53,0		2. 59,2		1. 11,7				3. 47,9		2. 44,4		0. 49,9	
14. 0	5. 31. 41,8	3. 52,9	16. 3. 31,7	2. 58,7	22. 30. 23,7	1. 10,9	16. 0	19. 0	7. 26. 57,0	3. 47,7	17. 29. 23,5	2. 44,1	23. 0. 37,6	0. 49,1	11. 0
14. 10	5. 35. 34,7	3. 52,7	16. 6. 30,4	2. 58,2	22. 31. 34,6	1. 10,2	15. 50	19. 10	7. 30. 44,7	3. 47,5	17. 32. 7,6	2. 43,6	23. 1. 26,7	0. 48,4	10. 50
14. 20	5. 39. 27,4	3. 52,5	16. 9. 28,6	2. 57,6	22. 32. 44,8	1. 9,4	15. 40	19. 20	7. 34. 32,2	3. 47,3	17. 34. 51,2	2. 43,0	23. 2. 15,1	0. 47,8	10. 40
14. 30	5. 43. 19,9	3. 52,3	16. 12. 26,2	2. 57,3	22. 33. 54,2	1. 8,8	15. 30	19. 30	7. 38. 19,5	3. 47,2	17. 37. 34,2	2. 42,6	23. 3. 2,9	0. 46,9	10. 30
14. 40	5. 47. 12,2	3. 52,3	16. 15. 23,5	2. 56,8	22. 35. 3,0	1. 8,1	15. 20	19. 40	7. 42. 6,7	3. 47,0	17. 40. 16,8	2. 42,1	23. 3. 49,8	0. 46,2	10. 20
14. 50	5. 51. 4,5	3. 52,1	16. 18. 20,3	2. 56,2	22. 36. 11,1	1. 7,4	15. 10	19. 50	7. 45. 53,7	3. 46,7	17. 42. 58,9	2. 41,5	23. 4. 46,0	0. 45,6	10. 10
15. 0	5. 54. 56,6		16. 21. 16,5		22. 37. 18,5		15. 0	20. 0	7. 49. 40,4		17. 45. 40,4		23. 5. 21,6		10. 0
	Decl.	diff.	Decl.	diff.	Decl.	diff.			Decl.	diff.	Decl.	diff.	Decl.	diff.	
Sig.	5 S	11 N	4 S	10 N	3 S	9 N	Sig.	Sig.	5 S	11 N	4 S	10 N	3 S	9 N	Sig.

TABLE

TABLE XXXIV. continued.

Declination of the Points of the Ecliptic.

Sig.	0 S	6 N	1 S	7 N	2 S	8 N	Sig.	Sig.	0 S	6 N	1 S	7 N	2 S	8 N	Sig.
	Declinat.	diff.	Declinat.	diff.	Declinat.	diff.			Declinat.	diff.	Declinat.	diff.	Declinat.	diff.	
° ′	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	° ′	° ′	° ′ ″	′ ″	′ ″	′ ″	° ′ ″	′ ″	° ′
20. 0	7. 49. 40, 4	3. 46, 6	17. 45. 40, 4	2. 41, 1	23. 5. 21, 6	0. 44, 6	10. 0	25. 0	9. 41. 18, 9	3. 39, 7	19. 2. 17, 7	2. 24, 7	23. 22. 19, 2	0. 22, 4	5. 0
20. 10	7. 53. 27, 0	3. 46, 4	17. 48. 21, 5	2. 40, 5	23. 6. 6, 2	0. 43, 9	9. 50	25. 10	9. 44. 58, 6	3. 39, 4	19. 4. 42, 4	2. 24, 1	23. 22. 41, 7	0. 21, 6	4. 50
20. 20	7. 57. 13, 4	3. 46, 1	17. 51. 2, 0	2. 39, 9	23. 6. 50, 1	0. 43, 2	9. 40	25. 20	9. 48. 38, 0	3. 39, 0	19. 7. 6, 5	2. 23, 5	23. 23. 3, 3	0. 20, 7	4. 40
20. 30	8. 0. 59, 5	3. 45, 8	17. 53. 41, 9	2. 39, 5	23. 7. 33, 3	0. 42, 5	9. 30	25. 30	9. 52. 17, 0	3. 38, 8	19. 9. 30, 0	2. 23, 0	23. 23. 24, 0	0. 20, 1	4. 30
20. 40	8. 4. 45, 3	3. 45, 6	17. 56. 21, 4	2. 38, 9	23. 8. 15, 8	0. 41, 8	9. 20	25. 40	9. 55. 55, 8	3. 38, 5	19. 11. 53, 0	2. 22, 4	23. 23. 44, 1	0. 19, 3	4. 20
20. 50	8. 8. 30, 9	3. 45, 5	17. 59. 0, 3	2. 38, 3	23. 8. 57, 6	0. 41, 0	9. 10	25. 50	9. 59. 34, 3	3. 38, 2	19. 14. 15, 4	2. 21, 8	23. 24. 3, 4	0. 18, 5	4. 10
21. 0	8. 12. 16, 4	3. 45, 3	18. 1. 38, 6	2. 37, 9	23. 9. 38, 6	0. 40, 2	9. 0	26. 0	10. 3. 12, 5	3. 38, 0	19. 16. 37, 2	2. 21, 3	23. 24. 21, 9	0. 17, 8	4. 0
21. 10	8. 16. 1, 7	3. 45, 1	18. 4. 16, 5	2. 37, 3	23. 10. 18, 8	0. 39, 5	8. 50	26. 10	10. 6. 50, 5	3. 37, 7	19. 18. 58, 5	2. 20, 7	23. 24. 39, 7	0. 17, 0	3. 50
21. 20	8. 19. 46, 8	3. 44, 8	18. 6. 53, 8	2. 36, 8	23. 10. 58, 3	0. 38, 9	8. 40	26. 20	10. 10. 28, 2	3. 37, 4	19. 21. 19, 2	2. 20, 0	23. 24. 56, 7	0. 16, 3	3. 40
21. 30	8. 23. 31, 6	3. 44, 6	18. 9. 30, 6	2. 36, 3	23. 11. 37, 2	0. 38, 1	8. 30	26. 30	10. 14. 5, 6	3. 37, 2	19. 23. 39, 2	2. 19, 6	23. 25. 13, 0	0. 15, 6	3. 30
21. 40	8. 27. 16, 2	3. 44, 4	18. 12. 6, 9	2. 35, 7	23. 12. 15, 3	0. 37, 3	8. 20	26. 40	10. 17. 42, 8	3. 36, 9	19. 25. 58, 8	2. 19, 0	23. 25. 28, 6	0. 14, 8	3. 20
21. 50	8. 31. 0, 6	3. 44, 1	18. 14. 42, 6	2. 35, 2	23. 12. 52, 6	0. 36, 6	8. 10	26. 50	10. 21. 19, 7	3. 36, 5	19. 28. 17, 8	2. 18, 3	23. 25. 43, 4	0. 13, 9	3. 10
22. 0	8. 34. 44, 7	3. 43, 9	18. 17. 17, 8	2. 34, 7	23. 13. 29, 2	0. 35, 9	8. 0	27. 0	10. 24. 56, 2	3. 36, 3	19. 30. 36, 1	2. 17, 8	23. 25. 57, 3	0. 13, 3	3. 0
22. 10	8. 38. 28, 6	3. 43, 7	18. 19. 52, 5	2. 34, 1	23. 14. 5, 1	0. 35, 1	7. 50	27. 10	10. 28. 32, 5	3. 36, 0	19. 32. 53, 9	2. 17, 2	23. 26. 10, 6	0. 12, 5	2. 50
22. 20	8. 42. 12, 3	3. 43, 4	18. 22. 26, 6	2. 33, 5	23. 14. 40, 2	0. 34, 2	7. 40	27. 20	10. 32. 8, 5	3. 35, 6	19. 35. 11, 1	2. 16, 5	23. 26. 23, 1	0. 11, 7	2. 40
22. 30	8. 45. 55, 7	3. 43, 2	18. 25. 0, 1	2. 33, 1	23. 15. 14, 4	0. 33, 6	7. 30	27. 30	10. 35. 44, 1	3. 35, 5	19. 37. 27, 6	2. 16, 0	23. 26. 34, 8	0. 11, 0	2. 30
22. 40	8. 49. 38, 9	3. 43, 0	18. 27. 33, 2	2. 32, 5	23. 15. 48, 0	0. 32, 8	7. 20	27. 40	10. 39. 19, 6	3. 35, 2	19. 39. 43, 6	2. 15, 4	23. 26. 45, 8	0. 10, 2	2. 20
22. 50	8. 53. 21, 9	3. 42, 9	18. 30. 5, 7	2. 31, 9	23. 16. 20, 8	0. 32, 1	7. 10	27. 50	10. 42. 54, 8	3. 34, 8	19. 41. 59, 0	2. 14, 8	23. 26. 56, 0	0. 9, 4	2. 10
23. 0	8. 57. 4, 8	3. 42, 6	18. 32. 37, 6	2. 31, 4	23. 16. 52, 9	0. 31, 4	7. 0	28. 0	10. 46. 29, 6	3. 34, 6	19. 44. 13, 8	2. 14, 3	23. 27. 5, 4	0. 8, 8	2. 0
23. 10	9. 0. 47, 4	3. 42, 3	18. 35. 9, 0	2. 30, 8	23. 17. 24, 3	0. 30, 6	6. 50	28. 10	10. 50. 4, 2	3. 34, 3	19. 46. 28, 1	2. 13, 7	23. 27. 14, 2	0. 8, 0	1. 50
23. 20	9. 4. 29, 7	3. 42, 1	18. 37. 39, 8	2. 30, 3	23. 17. 54, 9	0. 29, 7	6. 40	28. 20	10. 53. 38, 5	3. 33, 9	19. 48. 41, 8	2. 13, 0	23. 27. 22, 2	0. 7, 1	1. 40
23. 30	9. 8. 11, 8	3. 41, 7	18. 40. 10, 1	2. 29, 8	23. 18. 24, 6	0. 29, 1	6. 30	28. 30	10. 57. 12, 4	3. 33, 8	19. 50. 54, 8	2. 12, 4	23. 27. 29, 3	0. 6, 5	1. 30
23. 40	9. 11. 53, 5	3. 41, 5	18. 42. 39, 9	2. 29, 2	23. 18. 53, 7	0. 28, 3	6. 20	28. 40	11. 0. 46, 2	3. 33, 5	19. 53. 7, 2	2. 11, 8	23. 27. 35, 8	0. 5, 7	1. 20
23. 50	9. 15. 35, 0	3. 41, 3	18. 45. 9, 1	2. 28, 5	23. 19. 22, 0	0. 27, 6	6. 10	28. 50	11. 4. 19, 7	3. 33, 1	19. 55. 19, 0	2. 11, 3	23. 27. 41, 5	0. 4, 9	1. 10
24. 0	9. 19. 16, 3	3. 41, 1	18. 47. 37, 6	2. 28, 2	23. 19. 49, 6	0. 26, 9	6. 0	29. 0	11. 7. 52, 8	3. 32, 9	19. 57. 30, 3	2. 10, 6	23. 27. 46, 4	0. 4, 2	1. 0
24. 10	9. 22. 57, 4	3. 40, 8	18. 50. 5, 8	2. 27, 6	23. 20. 16, 5	0. 26, 1	5. 50	29. 10	11. 11. 25, 7	3. 32, 6	19. 59. 40, 9	2. 10, 0	23. 27. 50, 6	0. 3, 4	0. 50
24. 20	9. 26. 38, 2	3. 40, 6	18. 52. 33, 4	2. 26, 9	23. 20. 42, 6	0. 25, 2	5. 40	29. 20	11. 14. 58, 3	3. 32, 2	20. 1. 50, 9	2. 9, 3	23. 27. 54, 0	0. 2, 6	0. 40
24. 30	9. 30. 18, 8	3. 40, 2	18. 55. 0, 3	2. 26, 4	23. 21. 7, 8	0. 24, 6	5. 30	29. 30	11. 18. 30, 5	3. 31, 9	20. 4. 0, 2	2. 8, 8	23. 27. 56, 6	0. 1, 9	0. 30
24. 40	9. 33. 59, 0	3. 40, 0	18. 57. 26, 7	2. 25, 8	23. 21. 32, 4	0. 23, 8	5. 20	29. 40	11. 22. 2, 4	3. 31, 6	20. 6. 9, 0	2. 8, 2	23. 27. 58, 5	0. 1, 1	0. 20
24. 50	9. 37. 39, 0	3. 39, 9	18. 59. 52, 5	2. 25, 2	23. 21. 56, 2	0. 23, 1	5. 10	29. 50	11. 25. 34, 0	3. 31, 3	20. 8. 17, 2	2. 7, 5	23. 27. 59, 6	0. 0, 4	0. 10
25. 0	9. 41. 18, 9		19. 2. 17, 7		23. 22. 19, 3		5. 0	30. 0	11. 29. 5, 3		20. 10. 24, 7		23. 28. 0, 0		0. 0
	Decl.	diff.	Decl.	diff.	Decl.	diff.			Decl.	diff.	Decl.	diff.	Decl.	diff.	
Sig.	5 S	11 N	4 S	10 N	3 S	9 N	Sig.	Sig.	5 S	11 N	4 S	10 N	3 S	9 N	Sig.

TABLE

TABLE XXXV.

Correction of the approximate Longitude.

Right Asc. { 0 Sig. / 6 Sig. } with approx. Lat. { N / S } + { S / N } −

	0° 10′	0° 20′	0° 30′	0° 40′	0° 50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40′	2° 50′	3° 0′	
°	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	° ′ ″	° ′ ″	° ′ ″	°
0	3. 58, 9	7. 57, 8	11. 56, 8	15. 55, 7	19. 54, 7	23. 53, 4	27. 52, 7	31. 51, 7	35. 50, 7	39. 49, 3	43. 48, 9	47. 48, 1	51. 47, 3	55. 46, 5	59. 45, 8	1. 3. 45, 2	1. 7. 44, 6	1. 11. 44, 0	30
1	3. 58, 9	7. 57, 8	11. 56, 7	15. 55, 6	19. 54, 5	23. 53, 4	27. 52, 3	31. 51, 4	35. 50, 4	39. 49, 5	43. 48, 5	47. 47, 7	51. 46, 8	55. 46, 0	59. 45, 3	1. 3. 44, 6	1. 7. 43, 9	1. 11. 42, 9	29
2	3. 58, 8	7. 57, 6	11. 56, 3	15. 55, 1	19. 53, 9	23. 52, 8	27. 51, 7	31. 50, 6	35. 49, 4	39. 48, 4	43. 47, 3	47. 46, 3	51. 45, 4	55. 44, 5	59. 43, 6	1. 3. 42, 8	1. 7. 42, 1	1. 11. 41, 4	28
3	3. 58, 6	7. 57, 2	11. 55, 8	15. 54, 5	19. 53, 0	23. 51, 7	27. 50, 4	31. 49, 1	35. 47, 8	39. 46, 5	43. 45, 3	47. 44, 2	51. 43, 0	55. 41, 9	59. 40, 9	1. 3. 39, 9	1. 7. 39, 0	1. 11. 38, 1	27
4	3. 58, 3	7. 56, 7	11. 55, 0	15. 53, 4	19. 51, 8	23. 50, 2	27. 48, 6	31. 47, 0	35. 45, 5	39. 44, 0	43. 42, 5	47. 41, 1	51. 39, 7	55. 38, 4	59. 37, 1	1. 3. 35, 8	1. 7. 34, 7	1. 11. 33, 5	26
5	3. 58, 0	7. 56, 0	11. 54, 1	15. 52, 1	19. 50, 1	23. 48, 2	27. 46, 3	31. 44, 4	35. 42, 6	39. 40, 8	43. 38, 8	47. 37, 2	51. 35, 5	55. 33, 8	59. 32, 2	1. 3. 30, 6	1. 7. 29, 1	1. 11. 27, 6	25
6	3. 57, 6	7. 55, 2	11. 52, 9	15. 50, 5	19. 48, 1	23. 45, 8	27. 43, 6	31. 41, 2	35. 38, 9	39. 36, 7	43. 34, 6	47. 32, 4	51. 30, 3	55. 28, 2	59. 26, 2	1. 3. 24, 2	1. 7. 22, 2	1. 11. 20, 4	24
7	3. 57, 2	7. 54, 3	11. 51, 4	15. 48, 6	19. 45, 8	23. 43, 0	27. 40, 2	31. 37, 5	35. 34, 7	39. 32, 0	43. 29, 4	47. 26, 7	51. 24, 1	55. 21, 6	59. 19, 1	1. 3. 16, 6	1. 7. 14, 2	1. 11. 11, 9	23
8	3. 56, 6	7. 53, 2	11. 49, 8	15. 46, 5	19. 43, 1	23. 39, 7	27. 36, 4	31. 33, 2	35. 29, 8	39. 26, 6	43. 23, 4	47. 20, 2	51. 17, 1	55. 14, 0	59. 10, 9	1. 3. 7, 9	1. 7. 5, 0	1. 11. 2, 1	22
9	3. 56, 0	7. 51, 9	11. 47, 9	15. 43, 9	19. 40, 0	23. 36, 0	27. 32, 1	31. 28, 1	35. 24, 3	39. 20, 4	43. 16, 6	47. 12, 8	51. 9, 0	55. 5, 3	59. 1, 7	1. 2. 58, 1	1. 6. 54, 5	1. 10. 51, 0	21
10	3. 55, 3	7. 50, 6	11. 45, 9	15. 41, 2	19. 36, 5	23. 31, 9	27. 27, 2	31. 22, 6	35. 18, 1	39. 14, 1	43. 9, 0	47. 4, 5	51. 0, 1	54. 55, 7	58. 41, 3	1. 2. 47, 1	1. 6. 42, 8	1. 10. 38, 6	20
11	3. 54, 5	7. 49, 0	11. 43, 6	15. 38, 2	19. 33, 0	23. 27, 3	27. 21, 9	31. 16, 6	35. 11, 2	39. 5, 9	43. 0, 6	46. 55, 4	50. 50, 2	54. 45, 0	58. 39, 9	1. 2. 34, 9	1. 6. 29, 9	1. 10. 24, 9	19
12	3. 53, 7	7. 47, 4	11. 41, 1	15. 34, 8	19. 28, 6	23. 22, 3	27. 16, 2	31. 9, 9	35. 3, 8	38. 57, 6	42. 51, 5	46. 45, 4	50. 39, 4	54. 33, 4	58. 27, 5	1. 2. 21, 6	1. 6. 15, 7	1. 10. 10, 0	18
13	3. 52, 8	7. 45, 6	11. 38, 4	15. 31, 2	19. 24, 1	23. 16, 9	27. 9, 8	31. 2, 7	34. 55, 6	38. 48, 6	42. 41, 6	46. 34, 6	50. 27, 7	54. 20, 8	58. 19, 9	1. 2. 7, 1	1. 6. 0, 4	1. 9. 53, 7	17
14	3. 51, 8	7. 43, 6	11. 35, 5	15. 27, 4	19. 19, 2	23. 11, 1	27. 3, 0	30. 54, 5	34. 46, 8	38. 38, 8	42. 30, 8	46. 22, 2	50. 15, 0	54. 7, 1	57. 59, 3	1. 1. 51, 6	1. 5. 43, 8	1. 9. 36, 2	16
15	3. 50, 8	7. 41, 6	11. 32, 2	15. 23, 2	19. 14, 0	23. 4, 8	26. 55, 7	30. 46, 5	34. 37, 5	38. 28, 4	42. 19, 4	46. 10, 4	50. 1, 4	53. 52, 5	57. 43, 7	1. 1. 34, 8	1. 5. 26, 1	1. 9. 17, 4	15
16	3. 49, 6	7. 39, 3	11. 29, 0	15. 18, 7	19. 8, 4	22. 58, 1	26. 47, 8	30. 37, 6	34. 27, 4	38. 17, 3	42. 7, 2	45. 57, 0	49. 46, 9	53. 36, 9	57. 26, 9	1. 1. 17, 0	1. 5. 7, 1	1. 8. 57, 3	14
17	3. 48, 5	7. 36, 8	11. 25, 5	15. 14, 0	19. 2, 6	22. 51, 0	26. 39, 6	30. 28, 2	34. 16, 8	38. 5, 4	41. 54, 1	45. 42, 8	49. 31. 5	53. 20, 3	57. 9, 2	1. 0. 58, 0	1. 4. 47, 0	1. 8. 36, 1	13
18	3. 47, 3	7. 34, 5	11. 21, 7	15. 8, 9	18. 56, 2	22. 43, 5	26. 30, 8	30. 13, 9	34. 5, 5	37. 58, 1	41. 40, 3	45. 27, 7	49. 15, 2	53. 2, 8	56. 50, 4	1. 0. 38, 0	1. 4. 25, 6	1. 8. 11, 9	12
19	3. 45, 9	7. 31, 8	11. 17, 7	15. 3, 7	18. 49, 6	22. 35, 6	26. 21, 5	30. 7, 5	33. 53, 6	37. 39, 6	41. 25, 8	45. 11, 9	48. 58, 0	52. 44, 2	56. 30, 5	1. 0. 16, 8	1. 4. 3, 1	1. 7. 49, 5	11
20	3. 44, 5	7. 29, 0	11. 13, 6	14. 58, 1	18. 42, 7	22. 27, 2	26. 11, 8	29. 56, 4	33. 41, 8	37. 25, 7	41. 10, 4	44. 55, 1	48. 39, 9	52. 24, 7	56. 9, 6	0. 59. 54, 5	1. 3. 39, 5	1. 7. 24, 5	10
21	3. 43, 6	7. 26, 1	11. 9, 1	14. 52, 2	18. 35, 3	22. 18, 4	26. 1, 7	29. 44, 7	33. 27, 8	37. 11, 1	40. 54, 3	44. 37, 6	48. 20, 9	52. 4, 2	55. 47, 6	0. 59. 31, 1	1. 3. 14, 7	1. 6. 58, 1	9
22	3. 41, 5	7. 23, 0	11. 4, 6	14. 46, 2	18. 27, 7	22. 9, 3	25. 50, 9	29. 32, 5	33. 14, 1	36. 55, 8	40. 37, 5	44. 19, 3	48. 1, 1	51. 42, 9	55. 24, 8	0. 59. 6, 7	1. 2. 48, 7	1. 6. 30, 7	8
23	3. 39, 9	7. 19, 8	10. 59, 8	14. 39, 7	18. 19, 7	21. 59, 7	25. 39, 7	29. 19, 7	32. 59, 7	36. 39, 8	40. 20, 0	44. 0, 1	47. 40, 3	51. 20, 6	55. 0, 8	0. 58. 41, 1	1. 2. 21, 6	1. 6. 1, 9	7
24	3. 38, 3	7. 16, 8	10. 55, 0	14. 33, 1	18. 11, 4	21. 49, 7	25. 28, 1	29. 6, 4	32. 44, 8	36. 33, 2	40. 1, 7	43. 40, 2	47. 18, 0	50. 57, 2	54. 35, 8	0. 58. 14, 5	1. 1. 53, 2	1. 5. 32, 0	6
25	3. 36, 6	7. 13, 1	10. 49, 6	14. 26, 2	18. 2, 7	21. 39, 3	25. 15, 9	28. 52, 6	32. 29, 2	36. 5, 9	39. 42, 6	43. 19, 4	46. 56, 2	50. 33, 0	54. 9, 9	0. 57. 46, 8	1. 1. 23, 8	1. 5. 0, 8	5
26	3. 34, 8	7. 9, 5	10. 44, 2	14. 19, 3	17. 53, 8	21. 28, 6	25. 3, 4	28. 38, 2	32. 13, 1	35. 43, 7	39. 22, 9	42. 57, 9	46. 32, 8	50. 8, 5	53. 43, 0	0. 57. 18, 1	1. 0. 53, 3	1. 4. 28, 5	4
27	3. 32, 9	7. 5, 8	10. 38, 6	14. 11, 5	17. 44, 5	21. 17, 4	24. 50, 4	28. 23, 3	31. 56, 5	35. 29, 4	39. 2, 4	42. 35, 5	46. 8, 6	49. 41, 9	53. 15, 1	0. 56. 48, 3	1. 0. 21, 7	1. 3. 55. 0	3
28	3. 30, 9	7. 1, 9	10. 32, 9	14. 3, 9	17. 34, 9	21. 5, 8	24. 36, 9	28. 7, 9	31. 39, 0	35. 10, 1	38. 41, 3	42. 12, 4	45. 43, 5	49. 14, 2	52. 46, 2	0. 56. 17, 4	0. 59. 48, 9	1. 3. 20, 3	2
29	3. 28, 9	6. 57, 9	10. 26, 9	13. 55, 9	17. 24, 9	20. 53, 9	24. 22, 9	27. 52, 9	31. 21, 1	34. 50, 2	38. 19, 4	41. 48, 5	45. 17, 7	48. 47, 0	52. 16, 3	0. 55. 45, 6	0. 59. 15, 0	1. 2. 44. 5	1
30	3. 26, 9	6. 53, 8	10. 20, 7	13. 47, 7	17. 14, 7	20. 41, 6	24. 8, 3	27. 35, 6	31. 2, 7	34. 29, 6	37. 56, 8	41. 33, 9	44. 51, 0	48. 18, 2	51. 45, 5	0. 55. 12, 8	0. 58. 40, 1	1. 2. 7. 5	0
	0° 10′	0° 20′	0° 30′	0° 40′	0° 50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40	2° 50′	3° 0′	

Right Asc. { 5 Sig. / 11 Sig. } with approx. Lat. { N / S } − { S / N } +

TABLE XXXV. continued.

Correction of the approximate Longitude.

Right Asc. { 0 Sig. / 6 Sig. } with approx. Lat. { N / S } + { S / N } −

°	3° 10′	3° 20′	3° 30′	3° 40′	3° 50′	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20′	5° 30′	5° 40′	5° 50′	6° 0′	°
0	1. 15. 43,5	1. 19. 43, 1	1. 23. 42, 7	1. 27. 42, 3	1. 31. 42, 2	1. 35. 42, 1	1. 39. 42, 1	1. 43. 42, 1	1. 47. 42, 2	1. 51. 42, 4	1. 55. 42, 8	1. 59. 43, 2	2. 3. 43, 7	2. 7. 43, 8	2. 11. 45, 1	2. 15. 45, 9	2. 19. 46, 9	2. 23. 47, 9	30
1	1. 15. 42, 8	1. 19. 42, 4	1. 23. 41, 9	1. 27. 41, 6	1. 31. 41, 4	1. 35. 41, 3	1. 39. 41, 2	1. 43. 41, 2	1. 47. 41, 2	1. 51. 41, 4	1. 55. 41, 7	1. 59. 42, 1	2. 3. 42, 6	2. 7. 43, 2	2. 11. 43, 9	2. 15. 44, 7	2. 19. 45, 4	2. 23. 46, 6	29
2	1. 15. 40, 7	1. 19. 40, 2	1. 23. 39, 7	1. 27. 39, 2	1. 31. 38, 9	1. 35. 38, 6	1. 39. 38, 4	1. 43. 38, 4	1. 47. 38, 3	1. 51. 38, 4	1. 55. 38, 5	1. 59. 38, 8	2. 3. 39, 2	2. 7. 39, 7	2. 11. 40, 3	2. 15. 40, 9	2. 19. 41, 6	2. 23. 42, 7	28
3	1. 15. 37, 3	1. 19. 36, 9	1. 23. 35, 9	1. 27. 35, 2	1. 31. 34, 7	1. 35. 34, 2	1. 39. 33, 9	1. 43. 33, 6	1. 47. 33, 4	1. 51. 33, 2	1. 55. 33, 3	1. 59. 33, 3	2. 3. 33, 4	2. 7. 33, 8	2. 11. 34, 2	2. 15. 34, 8	2. 19. 35, 4	2. 23. 35, 1	27
4	1. 15. 32, 5	1. 19. 31, 4	1. 23. 30, 5	1. 27. 29, 6	1. 31. 28, 8	1. 35. 28, 1	1. 39. 27, 5	1. 43. 27, 0	1. 47. 26, 5	1. 51. 26, 1	1. 55. 25, 9	1. 59. 25, 7	2. 3. 25, 7	2. 7. 25, 7	2. 11. 25, 8	2. 15. 26, 1	2. 19. 26, 5	2. 23. 27, 0	26
5	1. 15. 26, 2	1. 19. 24, 9	1. 23. 23, 6	1. 27. 22, 4	1. 31. 21, 3	1. 35. 20, 3	1. 39. 19, 3	1. 43. 18, 4	1. 47. 17, 7	1. 51. 17, 0	1. 55. 16, 4	1. 59. 15, 9	2. 3. 15, 5	2. 7. 15, 2	2. 11. 15, 0	2. 15. 14, 9	2. 19. 15, 0	2. 23. 15, 2	25
6	1. 15. 18, 6	1. 19. 16, 9	1. 23. 15, 2	1. 27. 13, 8	1. 31. 12, 1	1. 35. 10, 7	1. 39. 9, 3	1. 43. 8, 0	1. 47. 6, 7	1. 51. 5, 8	1. 55. 4, 8	1. 59. 3, 9	2. 3. 3, 1	2. 7. 2, 4	2. 11. 1, 8	2. 15. 1, 3	2. 19. 1, 0	2. 23. 0, 7	24
7	1. 15. 9, 6	1. 19. 7, 4	1. 23. 5, 3	1. 27. 3, 3	1. 31. 1, 2	1. 34. 59, 3	1. 38. 57, 5	1. 42. 55, 7	1. 46. 54, 1	1. 50. 52, 5	1. 54. 51, 0	1. 58. 49, 6	2. 2. 48, 4	2. 6. 47, 2	2. 10. 46, 2	2. 14. 45, 2	2. 18. 44, 4	2. 22. 43, 6	23
8	1. 14. 59, 3	1. 18. 56, 8	1. 22. 53, 9	1. 26. 51, 3	1. 30. 48, 7	1. 34. 46, 3	1. 38. 43, 9	1. 42. 41, 6	1. 46. 39, 4	1. 50. 37, 3	1. 54. 35, 3	1. 58. 33, 3	2. 2. 31, 6	2. 6. 29, 8	2. 10. 28, 2	2. 14. 26, 7	2. 18. 25, 3	2. 22. 24, 1	22
9	1. 14. 47, 6	1. 18. 44, 2	1. 22. 40, 9	1. 26. 37, 7	1. 30. 34, 5	1. 34. 31, 4	1. 38. 28, 4	1. 42. 25, 5	1. 46. 22, 7	1. 50. 20, 0	1. 54. 17, 4	1. 58. 14, 8	2. 2. 12, 5	2. 6. 10, 0	2. 10. 7, 8	2. 14. 5, 7	2. 18. 3, 7	2. 22. 1, 8	21
10	1. 14. 34, 5	1. 18. 30, 5	1. 22. 26, 5	1. 26. 22, 7	1. 30. 18, 7	1. 34. 14, 9	1. 38. 11, 2	1. 42. 7, 6	1. 46. 3, 6	1. 50. 0, 7	1. 53. 57, 4	1. 57. 54, 1	2. 1. 51, 0	2. 5. 48, 0	2. 9. 45, 1	2. 13. 42, 3	2. 17. 39, 6	2. 21. 37, 0	20
11	1. 14. 20, 1	1. 18. 15, 2	1. 22. 10, 5	1. 26. 5, 8	1. 30. 1, 2	1. 33. 56, 7	1. 37. 52, 2	1. 41. 47, 8	1. 45. 43, 7	1. 49. 39, 4	1. 53. 35, 3	1. 57. 31, 3	2. 1. 27, 5	2. 5. 23, 5	2. 9. 20, 0	2. 13. 16, 5	2. 17. 12, 9	2. 21. 9, 6	19
12	1. 14. 4, 3	1. 17. 58, 6	1. 21. 53, 0	1. 25. 47, 5	1. 29. 42, 1	1. 33. 36, 9	1. 37. 31, 4	1. 41. 26, 2	1. 45. 21, 1	1. 49. 16, 1	1. 53. 11, 2	1. 57. 6, 3	2. 1. 1, 6	2. 4. 57, 0	2. 8. 52, 5	2. 12. 48, 1	2. 16. 43, 8	2. 20. 39, 6	18
13	1. 13. 47, 1	1. 17. 40, 5	1. 21. 34, 0	1. 25. 27, 6	1. 29. 21, 3	1. 33. 15, 0	1. 37. 8, 8	1. 41. 2, 7	1. 44. 56, 7	1. 48. 50, 8	1. 52. 44, 9	1. 56. 39, 2	2. 0. 33, 6	2. 4. 28, 1	2. 8. 22, 7	2. 12. 17, 4	2. 16. 12, 2	2. 20. 7, 1	17
14	1. 13. 28, 6	1. 17. 21, 1	1. 21. 13, 6	1. 25. 6, 2	1. 28. 58, 8	1. 32. 51, 7	1. 36. 44, 5	1. 40. 37, 4	1. 44. 30, 4	1. 48. 23, 5	1. 52. 16, 7	1. 56. 10, 0	2. 0. 3, 4	2. 3. 56, 9	2. 7. 50, 5	2. 11. 44, 2	2. 15. 38, 0	2. 19. 31, 9	16
15	1. 13. 8, 7	1. 17. 0, 2	1. 20. 51, 7	1. 24. 43, 2	1. 28. 34, 8	1. 32. 26, 5	1. 36. 18, 4	1. 40. 10, 2	1. 44. 2, 2	1. 47. 54, 2	1. 51. 46, 4	1. 55. 38, 6	1. 59. 30, 9	2. 3. 23, 4	2. 7. 16, 3	2. 11. 8, 7	2. 15. 1, 5	2. 18. 54, 3	15
16	1. 12. 47, 6	1. 16. 37, 9	1. 20. 28, 2	1. 24. 18, 7	1. 28. 9, 2	1. 31. 59, 8	1. 35. 50, 5	1. 39. 41, 2	1. 43. 32, 1	1. 47. 23, 0	1. 51. 14, 0	1. 55. 5, 1	1. 58. 56, 3	2. 2. 47, 7	2. 6. 39, 1	2. 10. 30, 7	2. 14. 22, 3	2. 18. 14, 1	14
17	1. 12. 25, 0	1. 16. 14, 2	1. 20. 3, 3	1. 23. 52, 6	1. 27. 41, 9	1. 31. 31, 3	1. 35. 20, 8	1. 39. 10, 4	1. 43. 0, 0	1. 46. 49, 8	1. 50. 39, 6	1. 54. 29, 6	1. 58. 19, 6	2. 2. 9, 7	2. 6. 0, 0	2. 9. 50, 3	2. 13. 40, 8	2. 17. 31, 4	13
18	1. 12. 1, 2	1. 15. 49, 1	1. 19. 36, 9	1. 23. 25, 0	1. 27. 13, 1	1. 31. 1, 2	1. 34. 49, 4	1. 38. 37, 7	1. 42. 26, 2	1. 46. 14, 6	1. 50. 3, 2	1. 53. 51, 9	1. 57. 40, 7	2. 1. 29, 5	2. 5. 18, 4	2. 9. 7, 6	2. 12. 56, 8	2. 16. 46, 2	12
19	1. 11. 36, 0	1. 15. 22, 6	1. 19. 9, 2	1. 22. 55, 9	1. 26. 42, 6	1. 30. 29, 4	1. 34. 16, 3	1. 38. 3, 3	1. 41. 50, 4	1. 45. 37, 5	1. 49. 24, 8	1. 53. 12, 1	1. 56. 59, 6	2. 0. 47, 1	2. 4. 34, 8	2. 8. 22, 5	2. 12. 10, 4	2. 15. 58, 2	11
20	1. 11. 9, 6	1. 14. 54, 7	1. 18. 39, 9	1. 22. 25, 2	1. 26. 10, 6	1. 29. 56, 0	1. 33. 41, 5	1. 37. 27, 1	1. 41. 12, 7	1. 44. 58, 5	1. 48. 44, 4	1. 52. 30, 3	1. 56. 16, 4	2. 0. 2, 5	2. 3. 48, 8	2. 7. 35, 1	2. 11. 21, 6	2. 15. 8, 2	10
21	1. 10. 41, 7	1. 14. 25, 4	1. 18. 9, 2	1. 21. 53, 0	1. 25. 36, 8	1. 29. 28, 4	1. 33. 4, 6	1. 36. 48, 9	1. 40. 33, 2	1. 44. 17, 4	1. 48. 1, 8	1. 51. 46, 3	1. 55. 30, 9	1. 59. 15, 6	2. 3. 0, 3	2. 6. 45, 2	2. 10. 30, 2	2. 14. 15, 5	9
22	1. 10. 12, 8	1. 13. 54, 9	1. 17. 37, 5	1. 21. 19, 4	1. 25. 1, 8	1. 28. 44, 2	1. 32. 26, 7	1. 36. 9, 3	1. 39. 51, 9	1. 43. 34, 7	1. 47. 17, 4	1. 51. 0, 5	1. 54. 43, 6	1. 58. 26, 7	2. 2. 9, 9	2. 5. 53, 3	2. 9. 36, 8	2. 13. 20, 4	8
23	1. 9. 42, 4	1. 13. 23, 0	1. 17. 3, 6	1. 20. 44, 4	1. 24. 25, 0	1. 28. 5, 8	1. 31. 46, 8	1. 35. 27, 7	1. 39. 8, 8	1. 42. 50, 0	1. 46. 31, 1	1. 50. 12, 6	1. 53. 54, 0	1. 57. 35, 6	2. 1. 17, 2	2. 4. 58, 9	2. 8. 40, 8	2. 12. 22, 8	7
24	1. 9. 10, 8	1. 12. 49, 7	1. 16. 28, 6	1. 20. 7, 7	1. 23. 46, 7	1. 27. 25, 9	1. 31. 5, 3	1. 34. 44, 5	1. 38. 23, 9	1. 42. 3, 3	1. 45. 42, 9	1. 49. 22, 6	1. 53. 2, 4	1. 56. 42, 2	2. 0. 22, 2	2. 4. 2, 3	2. 7. 42, 5	2. 11. 22, 8	6
25	1. 8. 37, 9	1. 12. 15, 1	1. 15. 52, 3	1. 19. 29, 6	1. 23. 6, 9	1. 26. 44, 4	1. 30. 21, 9	1. 33. 59, 4	1. 37. 37, 1	1. 41. 14, 9	1. 44. 52, 7	1. 48. 30, 6	1. 52. 8, 7	1. 55. 46, 8	1. 59. 25, 0	2. 3. 3, 4	2. 6. 41, 8	2. 10. 20, 4	5
26	1. 8. 3, 8	1. 11. 38, 2	1. 15. 14, 6	1. 18. 50, 0	1. 22. 25, 6	1. 26. 1, 2	1. 29. 36, 9	1. 33. 12, 7	1. 36. 48, 7	1. 40. 24, 5	1. 44. 0, 6	1. 47. 36, 7	1. 51. 12, 9	1. 54. 49, 2	1. 58. 25, 7	2. 2. 2, 2	2. 5. 38, 9	2. 9. 15, 6	4
27	1. 7. 28, 4	1. 11. 1, 8	1. 14. 35, 5	1. 18. 9, 1	1. 21. 42, 8	1. 25. 16, 5	1. 28. 50, 4	1. 32. 24, 3	1. 35. 58, 1	1. 39. 32, 4	1. 43. 6, 5	1. 46. 48, 8	1. 50. 15, 2	1. 53. 49, 6	1. 57. 24, 2	2. 0. 58, 8	2. 4. 33, 6	2. 8. 8, 5	3
28	1. 6. 51, 8	1. 10. 23, 4	1. 13. 55, 0	1. 17. 26, 7	1. 20. 58, 4	1. 24. 30, 3	1. 28. 2, 2	1. 31. 34, 2	1. 35. 6, 2	1. 38. 38, 4	1. 42. 10, 6	1. 45. 42, 9	1. 49. 15, 4	1. 52. 47, 9	1. 56. 20, 5	1. 59. 53, 2	2. 3. 26, 1	2. 6. 59, 0	2
29	1. 6. 14, 0	1. 9. 43, 6	1. 13. 13, 2	1. 16. 42, 9	1. 20. 12, 6	1. 23. 42, 5	1. 27. 12, 4	1. 30. 42, 3	1. 34. 12, 4	1. 37. 42, 6	1. 41. 12, 8	1. 44. 43, 2	1. 48. 13, 6	1. 51. 44, 1	1. 55. 14, 7	1. 58. 45, 4	2. 2. 16, 3	2. 5. 47, 2	1
30	1. 5. 33, 1	1. 9. 0, 5	1. 12. 30, 0	1. 15. 57, 7	1. 19. 25, 4	1. 22. 53, 1	1. 26. 21, 0	1. 29. 48, 9	1. 33. 16, 9	1. 36. 45, 0	1. 40. 13, 2	1. 43. 41, 5	1. 47. 9, 8	1. 50. 38, 3	1. 54. 6, 8	1. 57. 35, 3	2. 1. 4, 2	2. 4. 33, 1	0
	3° 10′	3° 20′	3° 30′	3° 40′	3° 50′	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20	5° 30′	5° 40′	5° 50′	6° 0′	

Right Asc. { 5 Sig. / 11 Sig. } with approx. Lat. { N / S } + { S / N } −

TABLE

TABLE XXXV. continued.

Correction of the approximate Longitude.

Right Asc. { 1 Sig. / 7 Sig. } with approx. Lat. { N / S } + { S / N } −

°	0° 10′	0° 20′	0° 30′	0° 40′	0° 50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40′	2° 50′	3° 0′	°
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	° ′ ″	
0	3. 26,9	6. 53,8	10. 20,7	13. 47,7	17. 14,7	20. 41,6	24. 8,3	27. 35,6	31. 2,7	34. 29,6	37. 56,8	41. 23,9	44. 51,0	48. 18,2	51. 45,5	55. 12,8	58. 40,1	1. 2. 7,5	30
1	3. 24,8	6. 49,6	10. 14,4	13. 39,2	17. 4,0	20. 28,9	23. 53,8	27. 18,7	30. 43,7	34. 8,5	37. 33,5	40. 50,8	44. 23,5	47. 48,6	51. 13,7	54. 38,9	58. 4,1	1. 1. 29,4	29
2	3. 22,7	6. 45,2	10. 7,9	13. 30,5	16. 53,2	20. 15,8	23. 38,5	27. 1,2	30. 23,9	33. 46,7	37. 9,5	40. 32,4	43. 55,2	47. 18,1	50. 41,0	54. 4,0	57. 27,0	1. 0. 50,1	28
3	3. 20,3	6. 40,7	10. 1,1	13. 21,5	16. 41,9	20. 2,4	23. 22,8	26. 43,2	30. 3,8	33. 24,3	36. 44,9	40. 5,4	43. 26,0	46. 46,7	50. 7,4	53. 28,2	56. 48,9	1. 0. 9,8	27
4	3. 18,1	6. 36,2	9. 54,2	13. 12,3	16. 30,4	19. 48,6	23. 6,7	26. 24,9	29. 43,1	33. 1,3	36. 19,6	39. 37,8	42. 56,1	46. 14,5	49. 32,9	52. 51,3	55. 59,8	0. 59. 28,3	26
5	3. 15,8	6. 31,4	9. 47,2	13. 2,9	16. 18,6	19. 34,4	22. 50,2	26. 6,0	29. 21,8	32. 37,7	35. 53,5	39. 9,5	42. 25,4	45. 41,4	48. 57,4	52. 13,6	55. 29,6	0. 58. 45,8	25
6	3. 13,3	6. 26,6	9. 39,9	12. 53,2	16. 6,5	19. 19,9	22. 33,2	25. 46,6	29. 0,0	32. 13,4	35. 26,9	38. 40,4	41. 53,9	45. 7,5	48. 21,7	51. 34,7	54. 48,4	0. 58. 2,2	24
7	3. 10,8	6. 21,6	9. 32,4	12. 43,3	15. 54,1	19. 5,0	22. 15,9	25. 26,7	28. 37,7	31. 48,6	34. 59,6	38. 10,6	41. 21,7	44. 32,7	47. 43,9	50. 55,0	54. 6,2	0. 57. 17,5	23
8	3. 8,3	6. 16,6	9. 24,8	12. 33,1	15. 41,4	18. 49,7	21. 58,1	25. 6,4	28. 14,9	31. 23,2	34. 31,7	37. 40,1	40. 48,7	43. 57,2	47. 5,8	50. 14,4	53. 23,1	0. 56. 31,0	22
9	3. 5,6	6. 11,3	9. 17,1	12. 22,7	15. 28,4	18. 34,2	21. 39,9	24. 45,7	27. 51,5	30. 57,3	34. 3,1	37. 9,0	40. 14,9	43. 20,8	46. 26,8	49. 32,9	52. 38,9	0. 55. 45,0	21
10	3. 3,1	6. 6,1	9. 9,1	12. 12,1	15. 15,2	18. 18,3	22. 21,3	24. 24,5	27. 27,6	30. 30,8	33. 33,9	36. 37,1	39. 40,4	42. 43,7	45. 47,0	48. 49,7	51. 53,8	0. 54. 57,2	20
11	3. 0,3	6. 0,6	9. 0,9	12. 1,3	15. 1,7	18. 2,0	21. 2,4	24. 2,8	27. 3,2	30. 3,7	33. 4,1	36. 4,6	39. 5,2	42. 5,8	45. 6,4	48. 6,9	51. 7,7	0. 54. 8,5	19
12	2. 57,6	5. 55,1	8. 52,7	11. 50,2	14. 47,8	17. 45,4	20. 43,0	23. 40,7	26. 38,4	29. 36,0	32. 33,7	35. 31,5	38. 29,2	41. 27,0	44. 24,9	47. 22,8	50. 20,7	0. 53. 18,7	18
13	2. 54,8	5. 49,5	8. 44,2	11. 39,0	14. 33,8	17. 28,5	20. 23,3	23. 18,1	26. 13,0	29. 7,8	32. 2,8	34. 57,7	37. 52,6	40. 48,0	43. 42,6	46. 37,7	49. 32,8	0. 52. 27,9	17
14	2. 51,9	5. 43,7	8. 35,6	11. 27,5	14. 19,4	17. 11,3	20. 3,2	22. 55,2	25. 47,1	28. 39,1	31. 31,1	34. 23,2	37. 15,3	40. 7,4	42. 59,6	45. 51,8	48. 43,9	0. 51. 36,2	16
15	2. 48,9	5. 37,9	8. 26,8	11. 15,8	14. 4,8	16. 53,8	19. 42,8	22. 31,8	25. 20,8	28. 9,9	30. 59,0	33. 48,1	36. 37,3	39. 26,4	42. 15,7	45. 4,9	47. 54,2	0. 50. 43,7	15
16	2. 46,0	5. 31,9	8. 17,9	11. 3,9	13. 49,9	16. 35,9	19. 21,9	22. 8,0	24. 54,9	27. 40,1	30. 26,7	33. 12,4	35. 58,6	38. 44,7	41. 31,0	44. 17,3	47. 3,6	0. 49. 50,0	14
17	2. 43,0	5. 25,9	8. 8,8	10. 51,8	13. 34,8	16. 17,7	19. 0,8	21. 43,8	24. 26,8	27. 9,9	29. 53,0	32. 36,1	35. 19,2	38. 2,4	40. 45,7	43. 28,9	46. 12,2	0. 48. 55,5	13
18	2. 39,8	5. 19,7	7. 59,6	10. 39,5	13. 19,4	15. 59,3	18. 39,2	21. 19,2	23. 59,1	26. 39,1	29. 19,1	31. 59,2	34. 39,3	37. 19,4	39. 59,5	42. 39,7	45. 19,9	0. 48. 0,1	12
19	2. 36,8	5. 13,5	7. 50,2	10. 27,0	13. 3,8	15. 40,6	18. 17,4	20. 54,2	23. 31,0	26. 7,9	28. 44,8	31. 21,7	33. 58,6	36. 35,6	39. 12,6	41. 49,7	44. 26,8	0. 47. 3,9	11
20	2. 33,6	5. 7,2	7. 40,7	10. 14,3	12. 47,9	15. 21,6	17. 55,2	20. 28,8	23. 2,5	25. 36,2	28. 9,9	30. 43,6	33. 17,4	35. 51,2	38. 25,0	40. 58,9	43. 32,8	0. 46. 6,8	10
21	2. 30,3	5. 0,7	7. 31,1	10. 1,4	12. 31,8	15. 2,2	17. 32,7	20. 3,1	22. 33,5	25. 4,3	27. 34,9	30. 5,1	32. 35,6	35. 6,2	37. 36,8	40. 7,4	42. 38,1	0. 45. 8,8	9
22	2. 27,1	4. 54,2	7. 21,3	9. 48,4	12. 15,5	14. 42,6	17. 9,4	19. 37,0	22. 4,2	24. 31,4	26. 58,6	29. 25,9	31. 53,1	34. 20,4	36. 47,8	39. 15,2	41. 42,6	0. 44. 10,0	8
23	2. 23,9	4. 47,6	7. 11,4	9. 35,2	11. 59,0	14. 22,8	16. 46,6	19. 10,5	21. 34,4	23. 58,3	26. 22,2	28. 46,1	31. 10,1	33. 34,1	35. 58,1	38. 22,2	40. 46,3	0. 43. 10,4	7
24	2. 20,4	4. 40,9	7. 0,3	9. 21,8	11. 42,2	14. 2,7	16. 23,2	18. 43,7	21. 4,2	23. 24,7	25. 45,3	28. 5,9	30. 26,5	32. 47,1	35. 7,8	37. 28,5	39. 49,3	0. 42. 10,1	6
25	2. 17,1	4. 34,1	6. 51,1	9. 8,2	11. 25,2	13. 42,3	15. 59,4	18. 16,5	20. 33,7	22. 50,8	25. 7,9	27. 25,2	29. 42,4	31. 59,6	34. 16,9	36. 34,2	38. 51,5	0. 41. 8,9	5
26	2. 13,7	4. 27,2	6. 40,8	8. 54,4	11. 8,1	13. 21,7	15. 35,4	17. 49,0	20. 2,7	22. 16,4	24. 30,2	26. 43,9	28. 57,7	31. 11,5	33. 25,3	35. 39,1	37. 53,0	0. 40. 5,8	4
27	2. 10,1	4. 20,2	6. 30,4	8. 40,5	10. 50,7	13. 0,8	15. 11,0	17. 21,2	19. 31,7	21. 41,7	23. 51,9	26. 2,1	28. 12,8	30. 22,8	32. 33,1	34. 43,5	36. 53,9	0. 39. 4,3	3
28	2. 6,7	4. 13,2	6. 19,8	8. 26,4	10. 33,1	12. 39,7	14. 46,4	16. 53,3	18. 59,7	21. 6,5	23. 13,2	25. 19,9	27. 26,7	29. 33,5	31. 40,3	33. 47,2	35. 54,1	0. 38. 1,0	2
29	2. 3,1	4. 6,1	6. 9,2	8. 12,2	10. 15,3	12. 18,4	14. 21,5	16. 24,7	18. 27,7	20. 30,9	22. 34,0	24. 37,3	26. 40,5	28. 43,7	30. 46,9	32. 50,2	34. 53,6	0. 36. 56,9	1
30	1. 59,5	3. 58,9	5. 58,4	7. 57,9	9. 57,3	11. 56,8	13. 56,3	15. 55,9	17. 55,4	19. 54,9	21. 54,5	23. 54,1	25. 53,8	27. 53,3	29. 53,0	31. 52,7	33. 52,4	0. 35. 52,2	0
	0° 10′	0° 20′	0° 30′	0° 40′	0° 50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40′	2° 50′	3° 0′	

Right Asc. { 4 Sig. / 10 Sig. } with approx. Lat. { N / S } − { S / N } +

TABLE

TABLE XXXV. continued.

Correction of the approximate Longitude.

Right Asc. { 1 Sig. / 7 Sig. } with approx. Lat. { N / S } + { S / N } −

°	3° 10′	3° 20′	3° 30′	3° 40′	3° 50′	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20′	5° 30′	5° 40′	5° 50′	6° 0′	°
	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	
0	1. 5. 33,1	1. 9. 0,5	1. 12. 30,0	1. 15. 57,7	1. 19. 25,4	1. 22. 53,1	1. 26. 21,0	1. 29. 48,9	1. 33. 16,9	1. 36. 45,0	1. 40. 13,2	1. 43. 41,5	1. 47. 9,8	1. 50. 38,3	1. 54. 6,8	1. 57. 35,3	2. 1. 4,2	2. 4. 33,1	30
1	1. 4. 54,7	1. 8. 20,1	1. 11. 45,0	1. 15. 11,1	1. 18. 36,6	1. 22. 2,3	1. 25. 28,0	1. 28. 53,8	1. 32. 19,7	1. 35. 45,7	1. 39. 11,7	1. 42. 37,8	1. 46. 4,1	1. 49. 30,4	1. 52. 56,8	1. 56. 23,4	1. 59. 50,0	2. 3. 16,8	29
2	1. 4. 13,3	1. 7. 36,8	1. 10. 59,7	1. 14. 22,0	1. 17. 46,5	1. 21. 9,9	1. 24. 33,5	1. 27. 57,1	1. 31. 20,8	1. 34. 44,6	1. 38. 8,4	1. 41. 32,4	1. 44. 56,4	1. 48. 20,6	1. 51. 44,8	1. 55. 9,1	1. 58. 33,6	2. 1. 58,1	28
3	1. 3. 32,7	1. 6. 51,6	1. 10. 12,6	1. 13. 33,7	1. 16. 54,9	1. 20. 16,1	1. 23. 37,4	1. 26. 58,8	1. 30. 20,3	1. 33. 41,7	1. 37. 3,4	1. 40. 25,1	1. 43. 46,8	1. 47. 8,7	1. 50. 30,7	1. 53. 52,8	1. 57. 15,0	2. 0. 37,3	27
4	1. 2. 46,9	1. 6. 5,6	1. 9. 24,3	1. 12. 43,1	1. 16. 1,9	1. 19. 20,8	1. 22. 39,8	1. 25. 58,8	1. 29. 18,0	1. 32. 37,2	1. 35. 56,5	1. 39. 15,9	1. 42. 35,3	1. 45. 54,9	1. 49. 14,6	1. 52. 34,4	1. 55. 54,2	1. 59. 14,2	26
5	1. 2. 2,0	1. 5. 18,1	1. 8. 34,6	1. 11. 51,0	1. 15. 7,5	1. 18. 24,1	1. 21. 40,7	1. 24. 57,3	1. 28. 14,1	1. 31. 30,9	1. 34. 47,8	1. 38. 4,9	1. 41. 22,0	1. 44. 39,2	1. 47. 56,5	1. 51. 13,9	1. 54. 31,4	1. 57. 48,9	25
6	1. 1. 16,0	1. 4. 29,8	1. 7. 43,7	1. 10. 57,7	1. 14. 11,8	1. 17. 25,9	1. 20. 40,0	1. 23. 54,3	1. 27. 8,6	1. 30. 23,0	1. 33. 37,7	1. 36. 52,1	1. 40. 6,8	1. 43. 21,5	1. 46. 36,4	1. 49. 51,4	1. 53. 6,4	1. 56. 21,6	24
7	1. 0. 28,8	1. 3. 40,2	1. 6. 51,6	1. 10. 3,1	1. 13. 14,6	1. 16. 26,1	1. 19. 38,0	1. 22. 49,7	1. 26. 1,6	1. 29. 13,5	1. 32. 25,5	1. 35. 37,6	1. 38. 49,8	1. 42. 2,0	1. 45. 14,4	1. 48. 27,0	1. 51. 39,1	1. 54. 52,0	23
8	0. 59. 40,5	1. 2. 49,4	1. 5. 58,3	1. 9. 7,2	1. 12. 16,2	1. 15. 25,3	1. 18. 34,4	1. 21. 43,7	1. 24. 52,9	1. 28. 2,3	1. 31. 11,8	1. 34. 21,3	1. 37. 30,9	1. 40. 40,6	1. 43. 50,4	1. 47. 0,3	1. 50. 10,3	1. 53. 20,4	22
9	0. 58. 51,2	1. 1. 57,4	1. 5. 3,7	1. 8. 10,0	1. 11. 16,4	1. 14. 22,9	1. 17. 29,5	1. 20. 36,1	1. 23. 42,7	1. 26. 49,5	1. 29. 56,3	1. 33. 3,3	1. 36. 10,3	1. 39. 17,4	1. 42. 24,6	1. 45. 31,9	1. 48. 39,2	1. 51. 46,7	21
10	0. 58. 0,8	1. 1. 4,3	1. 4. 7,9	1. 7. 11,6	1. 10. 14,4	1. 13. 19,2	1. 16. 23,1	1. 19. 27,0	1. 22. 31,0	1. 25. 35,1	1. 28. 39,3	1. 31. 43,6	1. 34. 47,9	1. 37. 52,3	1. 40. 56,8	1. 44. 1,5	1. 47. 6,2	1. 50. 11,0	20
11	0. 57. 9,3	1. 0. 10,1	1. 3. 11,0	1. 6. 12,0	1. 9. 13,0	1. 12. 14,1	1. 15. 15,3	1. 18. 16,5	1. 21. 17,8	1. 24. 19,2	1. 27. 20,6	1. 30. 22,1	1. 33. 23,8	1. 36. 25,5	1. 39. 27,3	1. 42. 29,2	1. 45. 31,2	1. 48. 33,2	19
12	0. 56. 16,7	0. 59. 14,8	1. 2. 12,9	1. 5. 11,2	1. 8. 9,4	1. 11. 7,7	1. 14. 6,1	1. 17. 4,6	1. 20. 3,1	1. 23. 1,7	1. 26. 0,4	1. 28. 59,9	1. 31. 57,7	1. 34. 56,9	1. 37. 55,9	1. 40. 55,0	1. 43. 54,2	1. 46. 53,3	18
13	0. 55. 23,2	0. 58. 18,4	1. 1. 13,7	1. 4. 9,1	1. 7. 4,5	1. 10. 0,0	1. 12. 55,6	1. 15. 51,2	1. 18. 46,9	1. 21. 42,6	1. 24. 38,5	1. 27. 34,4	1. 30. 30,4	1. 33. 26,5	1. 36. 22,7	1. 39. 19,0	1. 42. 15,3	1. 45. 11,8	17
14	0. 54. 28,6	0. 57. 20,9	1. 0. 13,4	1. 3. 5,9	1. 5. 58,4	1. 8. 51,0	1. 11. 43,7	1. 14. 36,4	1. 17. 29,3	1. 20. 22,1	1. 23. 15,1	1. 26. 8,1	1. 29. 1,8	1. 31. 54,5	1. 34. 47,9	1. 37. 41,1	1. 40. 34,6	1. 43. 28,0	16
15	0. 53. 33,0	0. 56. 22,4	0. 59. 11,9	1. 2. 1,5	1. 4. 51,1	1. 7. 40,8	1. 10. 30,5	1. 13. 20,4	1. 16. 10,2	1. 19. 0,2	1. 21. 50,2	1. 24. 40,3	1. 27. 30,5	1. 30. 20,7	1. 33. 11,2	1. 36. 1,5	1. 38. 52,0	1. 41. 42,7	15
16	0. 52. 36,4	0. 55. 22,9	0. 58. 9,4	1. 0. 56,0	1. 3. 42,6	1. 6. 29,3	1. 9. 17,1	1. 12. 2,8	1. 14. 49,8	1. 17. 36,6	1. 20. 23,7	1. 23. 10,9	1. 25. 58,7	1. 28. 45,5	1. 31. 32,7	1. 34. 21,4	1. 37. 7,7	1. 39. 55,3	14
17	0. 51. 38,9	0. 54. 22,4	0. 57. 5,9	0. 59. 49,4	1. 2. 33,0	1. 5. 16,6	1. 8. 0,4	1. 10. 44,1	1. 13. 28,0	1. 16. 11,9	1. 18. 55,9	1. 21. 40,0	1. 24. 24,1	1. 27. 8,3	1. 29. 52,6	1. 32. 37,0	1. 35. 21,5	1. 38. 6,1	13
18	0. 50. 40,5	0. 53. 28,8	0. 56. 1,2	0. 58. 41,7	1. 1. 22,2	1. 4. 2,8	1. 6. 43,4	1. 9. 24,1	1. 12. 5,8	1. 14. 45,7	1. 17. 26,6	1. 20. 7,5	1. 22. 48,6	1. 25. 29,7	1. 28. 10,9	1. 30. 52,3	1. 33. 33,7	1. 36. 15,1	12
19	0. 49. 41,1	0. 52. 18,3	0. 54. 55,6	0. 57. 32,9	1. 0. 10,3	1. 2. 47,7	1. 5. 25,2	1. 8. 2,7	1. 10. 40,4	1. 13. 18,1	1. 15. 54,8	1. 18. 33,7	1. 21. 11,6	1. 23. 49,6	1. 26. 27,6	1. 29. 5,8	1. 31. 44,0	1. 34. 22,3	11
20	0. 48. 40,8	0. 51. 14,5	0. 53. 48,8	0. 56. 23,1	0. 58. 57,2	1. 1. 31,5	1. 4. 5,8	1. 6. 40,2	1. 9. 14,6	1. 11. 48,8	1. 14. 23,7	1. 16. 58,4	1. 19. 33,1	1. 22. 7,9	1. 24. 42,7	1. 27. 17,7	1. 29. 52,7	1. 32. 27,8	10
21	0. 47. 39,6	0. 50. 10,4	0. 52. 41,3	0. 55. 12,2	0. 57. 43,2	1. 0. 14,2	1. 2. 45,3	1. 5. 16,4	1. 7. 47,6	1. 10. 18,9	1. 12. 50,2	1. 15. 21,6	1. 17. 53,1	1. 20. 24,6	1. 22. 56,3	1. 25. 28,0	1. 27. 59,8	1. 30. 31,7	9
22	0. 46. 37,4	0. 49. 5,1	0. 51. 32,7	0. 54. 0,3	0. 56. 28,0	0. 58. 55,8	1. 1. 23,6	1. 3. 51,4	1. 6. 19,3	1. 8. 47,3	1. 11. 15,4	1. 13. 43,5	1. 16. 11,7	1. 18. 40,0	1. 21. 8,3	1. 23. 36,7	1. 26. 5,2	1. 28. 33,8	8
23	0. 45. 34,7	0. 47. 58,8	0. 50. 23,1	0. 52. 47,4	0. 55. 11,9	0. 57. 36,2	1. 0. 0,7	1. 2. 25,3	1. 4. 49,9	1. 7. 14,6	1. 9. 39,2	1. 12. 4,0	1. 14. 28,8	1. 16. 51,4	1. 19. 18,8	1. 21. 43,9	1. 24. 9,1	1. 26. 34,4	7
24	0. 44. 30,9	0. 46. 51,7	0. 49. 12,7	0. 51. 33,6	0. 53. 54,6	0. 56. 15,7	0. 58. 36,8	1. 0. 58,0	1. 3. 19,2	1. 5. 40,6	1. 8. 1,8	1. 10. 23,3	1. 12. 44,8	1. 15. 6,3	1. 17. 27,9	1. 19. 49,7	1. 22. 11,4	1. 24. 33,3	6
25	0. 43. 26,3	0. 45. 43,8	0. 48. 1,3	0. 50. 18,8	0. 52. 36,5	0. 54. 54,1	0. 57. 11,8	0. 59. 29,6	1. 1. 47,4	1. 4. 5,3	1. 6. 23,2	1. 8. 41,2	1. 10. 59,3	1. 13. 17,4	1. 15. 35,6	1. 17. 53,9	1. 20. 11,2	1. 22. 30,7	5
26	0. 42. 21,0	0. 44. 35,0	0. 46. 49,1	0. 49. 3,2	0. 51. 17,3	0. 53. 31,5	0. 55. 45,5	0. 58. 0,1	1. 0. 14,4	1. 2. 28,0	1. 4. 43,3	1. 6. 57,9	1. 9. 12,4	1. 11. 27,2	1. 13. 41,9	1. 15. 56,7	1. 18. 11,7	1. 20. 26,6	4
27	0. 41. 15,0	0. 43. 25,4	0. 45. 35,9	0. 47. 46,6	0. 49. 57,2	0. 52. 7,9	0. 54. 18,9	0. 56. 29,5	0. 58. 40,4	1. 0. 51,3	1. 3. 2,5	1. 5. 13,3	1. 7. 24,5	1. 9. 37,5	1. 11. 46,8	1. 13. 58,2	1. 16. 9,6	1. 18. 21,7	3
28	0. 40. 7,9	0. 42. 15,0	0. 44. 22,0	0. 46. 29,1	0. 48. 36,2	0. 50. 43,4	0. 52. 50,7	0. 54. 57,9	0. 57. 5,3	0. 59. 12,7	1. 1. 20,1	1. 3. 27,6	1. 5. 35,2	1. 7. 42,8	1. 9. 50,5	1. 11. 58,3	1. 14. 6,1	1. 16. 14,0	2
29	0. 39. 0,3	0. 41. 3,8	0. 43. 7,3	0. 45. 10,8	0. 47. 14,3	0. 49. 17,9	0. 51. 21,6	0. 53. 25,2	0. 55. 29,1	0. 57. 32,9	0. 59. 36,8	1. 1. 40,7	1. 3. 44,8	1. 5. 48,7	1. 7. 52,8	1. 9. 57,0	1. 12. 1,3	1. 14. 5,6	1
30	0. 37. 52,0	0. 39. 51,8	0. 41. 51,7	0. 43. 51,6	0. 45. 51,6	0. 47. 51,6	0. 49. 51,7	0. 51. 51,8	0. 53. 51,9	0. 55. 52,1	0. 57. 52,4	0. 59. 52,7	1. 1. 53,0	1. 3. 53,5	1. 5. 54,0	1. 7. 54,5	1. 9. 55,1	1. 11. 55,8	0
	3° 10′	3° 20′	3° 30′	3° 40′	3° 50′	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20′	5° 30′	5° 40′	5° 50′	6° 0′	

Right Asc. { 4 Sig. / 10 Sig. } with approx. Lat. { N / S } − { S / N } +

TABLE

TABLE XXXV. continued.

Correction of the approximate Longitude.

Right Asc. { 2 Sig. / 8 Sig. } with Approx. Lat. { N / S } + { S / N } −

°	0° 10′	0° 20′	0° 30′	0° 40′	0° 50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40′	2° 50′	3° 0′	°
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	° ′ ″	° ′ ″	
0	1. 59,5	3. 58,9	5. 58,4	7. 57,9	9. 57,3	11. 56,8	13. 56,3	15. 55,9	17. 55,4	19. 54,9	21. 54,5	23. 54,1	25. 53,8	27. 53,3	29. 53,0	31. 52,7	33. 52,4	35. 52,2	30
1	1. 55,9	3. 51,7	5. 47,5	7. 43,7	9. 39,2	11. 35,1	13. 30,9	15. 26,8	17. 22,5	19. 18,7	21. 14,6	23. 10,5	25. 6,5	27. 2,6	28. 58,6	30. 54,6	32. 50,7	34. 46,8	29
2	1. 52,2	3. 44,4	5. 36,5	7. 28	9. 20,9	11. 13,1	13. 5,3	14. 57,5	16. 49,7	18. 42,0	20. 34,3	22. 26,6	24. 18,8	26. 11,2	28. 3,6	29. 55,9	31. 48,4	33. 40,9	28
3	1. 48,3	3. 36,9	5. 25,2	7. 13,9	9. 2,4	10. 50,8	12. 39,4	14. 27,9	16. 16,4	18. 5,0	19. 53,6	21. 42,1	23. 30,8	25. 19,4	27. 8,0	28. 56,7	30. 45,4	32. 34,2	27
4	1. 44,8	3. 29,2	5. 14,3	6. 58,9	8. 43,7	10. 28,5	12. 13,3	13. 58,0	15. 42,9	17. 27,6	19. 12,6	20. 57,4	22. 42,2	24. 27,1	26. 12,0	27. 57,0	29. 41,9	31. 27,9	26
5	1. 41,0	3. 21,9	5. 2,9	6. 43,9	8. 24,9	10. 5,9	11. 46,9	13. 29,9	15. 8,9	16. 50,0	18. 31,1	20. 12,2	21. 53,3	23. 34,4	25. 15,6	26. 56,7	28. 37,9	30. 19,2	25
6	1. 37,2	3. 14,4	4. 51,6	6. 28,7	8. 5,9	9. 43,1	11. 20. 3	12. 57,6	14. 34,8	16. 12,0	17. 49,3	19. 26,6	21. 3,9	22. 41,2	24. 18,6	25. 56,0	27. 33,4	29. 10,8	24
7	1. 33,4	3. 6,8	4. 40,0	6. 13,4	7. 46,8	9. 20,2	10. 53,5	12. 27,0	14. 0,4	15. 33,8	17. 7,2	18. 40,7	20. 14,2	21. 47,7	23. 21,2	24. 54,7	26. 28,7	28. 1,9	23
8	1. 29,5	2. 59,0	4. 28,5	5. 58,0	7. 27,5	8. 57,1	10. 26,6	11. 56,1	13. 25,7	14. 55,3	16. 24,9	17. 54,5	19. 24,4	20. 53,7	22. 23,4	23. 53,0	25. 22,8	26. 52,5	22
9	1. 25,7	2. 51,2	4. 16,9	5. 42,4	7. 8,1	8. 33,8	9. 59,4	11. 25,1	12. 50,8	14. 16,4	15. 42,2	17. 7,9	18. 33,6	19. 59,4	21. 25,1	22. 50,9	24. 16,7	25. 42,6	21
10	1. 21,8	2. 43,5	4. 5,2	5. 26,9	6. 48,6	8. 10,3	9. 32,1	10. 53,9	12. 15,6	13. 37,4	14. 59,2	16. 21,0	17. 42,8	19. 4,7	20. 26,5	21. 48,1	23. 10,3	24. 32,6	20
11	1. 17,9	2. 35,6	3. 53,4	5. 11,1	6. 28,9	7. 46,7	9. 4,6	10. 22,4	11. 40,2	12. 58,1	14. 15,9	15. 33,8	16. 51,7	18. 9,3	19. 27,5	20. 45,5	22. 3,4	23. 21,4	19
12	1. 13,9	2. 27,7	3. 41,5	4. 55,4	6. 9,2	7. 23,0	8. 36,9	9. 50,7	11. 4,7	12. 18,6	13. 32,4	14. 46,3	16. 0,2	17. 14,2	18. 28,2	19. 42,2	20. 56,2	22. 10,2	18
13	1. 9,8	2. 19,7	3. 29,5	4. 39,4	5. 49,3	6. 59,1	8. 9,0	9. 18,9	10. 28,8	11. 38,7	12. 48,6	13. 58,6	15. 8,5	16. 18,5	17. 28,4	18. 38,4	19. 48,5	20. 58,5	17
14	1. 6,0	2. 11,7	3. 17,6	4. 23,4	5. 29,3	6. 35,2	7. 41,0	8. 46,9	9. 52,8	10. 58,7	12. 4,7	13. 10,6	14. 16,5	15. 22,5	16. 28,5	17. 34,5	18. 40,5	19. 46,5	16
15	1. 1,9	2. 3,7	3. 5,5	4. 7,4	5. 9,2	6. 11,0	7. 12,9	8. 14,8	9. 16,7	10. 18,5	11. 20,4	12. 22,3	13. 24,3	14. 26,2	15. 28,2	16. 30,1	17. 32,1	18. 34,1	15
16	0. 57,9	1. 55,7	2. 53,4	3. 51,2	4. 49,0	5. 46,9	6. 44,7	7. 42,5	8. 40,3	9. 38,2	10. 36,0	11. 33,9	12. 31,7	13. 29,6	14. 27,5	15. 25,5	16. 23,4	17. 21,3	14
17	0. 53,9	1. 47,5	2. 41,2	3. 35,0	4. 28,7	5. 22,5	6. 16,3	7. 10,0	8. 3,8	8. 57,6	9. 51,4	10. 45,2	11. 39,0	12. 32,9	13. 26,7	14. 20,5	15. 14,4	16. 8,3	13
18	0. 49,7	1. 39,4	2. 29,0	3. 18,7	4. 8,4	4. 58,1	5. 47,8	6. 37,5	7. 27,2	8. 16,9	9. 6,6	9. 56,3	10. 46,1	11. 35,8	12. 25,5	13. 15,4	14. 5,1	14. 54,9	12
19	0. 45,8	1. 31,2	2. 16,8	3. 2,4	3. 48,0	4. 33,6	5. 18,0	6. 4,7	6. 50,0	7. 36,0	8. 21,6	9. 7,3	9. 52,9	10. 38,6	11. 24,3	12. 9,9	12. 55,6	13. 41,3	11
20	0. 41,6	1. 23,1	2. 4,6	2. 46,0	3. 27,5	4. 8,9	4. 54,7	5. 32,0	6. 13,5	6. 55,0	7. 36,5	8. 18,0	8. 59,6	9. 41,1	10. 22,8	11. 4,3	11. 45,9	12. 27,5	10
21	0. 37,6	1. 14,9	1. 52,2	2. 29,5	3. 6,9	3. 44,3	4. 21,7	4. 59,0	5. 36,9	6. 13,9	6. 51,3	7. 28,7	8. 6,1	8. 43,6	9. 21,0	9. 58,4	10. 35,9	11. 13,4	9
22	0. 33,6	1. 6,6	1. 39,7	2. 13,0	2. 46,3	3. 19,5	3. 52,8	4. 26,1	4. 59,3	5. 31,2	6. 5,9	6. 39,2	7. 12,5	7. 45,8	8. 19,1	8. 52,4	9. 25,7	9. 59,1	8
23	0. 29,2	0. 58,3	1. 27,4	1. 56,5	2. 25,6	2. 54,8	3. 23,9	3. 53,0	4. 22,1	4. 51,2	5. 20,4	5. 49,5	6. 18,7	6. 47,9	7. 17,0	7. 46,2	8. 15,4	8. 47,6	7
24	0. 25,5	0. 49,9	1. 15,0	1. 39,9	2. 4,9	2. 29,9	2. 54,9	3. 19,8	3. 44,8	4. 9,8	4. 34,8	4. 59,8	5. 24,8	5. 49,8	6. 14,8	6. 39,8	7. 4,8	7. 29,8	6
25	0. 20,9	0. 41,8	1. 2,6	1. 23,4	1. 44,2	2. 5,0	2. 25,8	2. 46,6	3. 7,4	3. 28,3	3. 49,1	4. 9,9	4. 30,8	4. 51,7	5. 12,5	5. 33,4	5. 54,3	6. 15,2	5
26	0. 17,3	0. 33,6	0. 50,0	1. 6,8	1. 23,4	1. 40,0	1. 56,7	2. 13,4	2. 30,0	2. 46,7	3. 3,4	3. 20,0	3. 36,7	3. 53,5	4. 10,1	4. 26,8	4. 43,6	5. 0,3	4
27	0. 13,2	0. 25,5	0. 37,7	0. 50,0	1. 2,6	1. 15,2	1. 27,8	1. 40,0	1. 52,7	2. 5,2	2. 17,6	2. 30,1	2. 42,7	2. 55,2	3. 7,7	3. 20,2	3. 32,7	3. 45,3	3
28	0. 8,8	0. 17,3	0. 25,5	0. 33,7	0. 41,9	0. 50,0	0. 58,4	1. 6,8	1. 15,2	1. 23,5	1. 31,8	1. 40,1	1. 48,7	1. 57,2	2. 5,6	2. 13,6	2. 21,9	2. 30,2	2
29	0. 4,4	0. 8,8	0. 13,2	0. 17,4	0. 21,0	0. 25,5	0. 29,3	0. 33,2	0. 37,7	0. 41,8	0. 46,0	0. 50,0	0. 54,4	0. 58,5	1. 2,7	1. 6,9	1. 11,0	1. 15,3	1
30	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0
	0° 10′	0° 20′	0° 30′	0° 40′	0° 50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40′	2° 50′	3° 0′	

Right Asc. { 3 Sig. / 9 Sig. } with Approx. Lat. { N / S } − { S / N } +

TABLE XXXV. continued.

Correction of the approximate Longitude.

Right Asc. { 2 Sig. / 8 Sig. } with Approx. Lat. { N / S } + { S / N } −

°	3° 10′	3° 20′	3° 30′	3° 40′	3° 50′	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20′	5° 30′	5° 40′	5° 50′	6° 0′	°
0	37. 52,0	39. 51,8	41. 51,7	43. 51,6	45. 51,6	47. 51,6	49. 51,7	51. 51,8	53. 51,9	55. 52,1	57. 52,4	59. 52,7	1. 1. 53,0	1. 3. 53,5	1. 5. 54,0	1. 7. 54,5	1. 9. 55,1	1. 11. 55,8	30
1	36. 43,0	38. 39,2	40. 35,4	42. 31,7	44. 28,0	46. 24,4	48. 20,8	50. 17,2	52. 13,7	54. 10,3	56. 6,9	58. 3,5	1. 0. 0,2	1. 1. 57,0	1. 3. 53,9	1. 5. 50,8	1. 7. 47,7	1. 9. 44,8	29
2	35. 33,3	37. 25,8	39. 18,4	41. 11,0	43. 3,6	44. 56,3	46. 49,0	48. 41,8	50. 34,6	52. 27,5	54. 20,4	56. 13,3	0. 58. 6,4	0. 59. 58. 6	1. 1. 52,6	1. 3. 45,8	1. 5. 39,1	1. 7. 32,4	28
3	34. 22,9	36. 11,8	38. 0,6	39. 49,5	41. 38,5	43. 27,4	45. 16,4	47. 5,3	48. 54,5	50. 43,7	52. 32,9	54. 22,1	0. 56. 11,4	0. 58. 0,8	0. 59. 50,2	1. 1. 39,7	1. 3. 29,2	1. 5. 18,8	27
4	33. 12,0	34. 57,1	36. 42,2	38. 27,3	40. 12,5	41. 57,7	43. 42,9	45. 28,3	47. 13,6	48. 59,0	50. 44,4	52. 29,9	0. 54. 15,5	0. 56. 1,0	0. 57. 46,7	0. 59. 32,4	1. 1. 18,2	1. 3. 4,0	26
5	32. 0,0	33. 49,7	35. 23,6	37. 4,4	38. 45,8	40. 27,2	42. 8,7	43. 50,2	45. 31,8	47. 13,4	48. 55,0	50. 36,7	0. 52. 18,5	0. 54. 0,3	0. 55. 42,2	0. 57. 24,9	0. 59. 6,0	1. 0. 48,1	25
6	30. 48,2	32. 25,8	34. 3,2	35. 40,8	37. 18,4	38. 56,0	40. 33,7	42. 11,4	43. 49,1	45. 26,1	47. 4,7	48. 42,6	0. 50. 20,6	0. 51. 58,6	0. 53. 36,6	0. 55. 14,7	0. 56. 52,8	0. 58. 31,0	24
7	29. 35,5	31. 9,2	32. 42,9	34. 16,6	35. 50,3	37. 24,1	38. 57,9	40. 31,8	42. 5,7	43. 39,6	45. 19,9	46. 47,6	0. 48. 21,8	0. 49. 55,9	0. 51. 30,6	0. 53. 4,2	0. 54. 38,5	0. 56. 12,9	23
8	28. 22,3	29. 52,7	31. 21,9	32. 51,7	34. 21,6	35. 51,5	37. 21,4	38. 51,4	40. 21,5	41. 51,5	43. 21,6	44. 51,8	0. 46. 22,1	0. 47. 52,2	0. 49. 22,5	0. 50. 52,9	0. 52. 23,2	0. 53. 53,7	22
9	27. 8,5	28. 34,3	30. 0,3	31. 26,2	32. 52,2	34. 18,3	35. 44,3	37. 10,4	38. 36,5	40. 2,7	41. 28,9	42. 55,1	0. 44. 21,4	0. 45. 47,7	0. 47 14,1	0. 48. 40,6	0. 50. 7,0	0. 51. 33,5	21
10	25. 54,2	27. 16,1	28. 38,2	30. 0,2	31. 22,3	32. 44,4	34. 6,5	35. 28,6	36. 50,9	38. 13,1	39. 35,3	40. 57,7	0. 42. 20,0	0. 43. 42,4	0. 45. 4,9	0. 46. 27,3	0. 47. 49,8	0. 49. 12,4	20
11	24. 39,4	25. 57,5	27. 15,5	28. 33,6	29. 51,3	31. 9,9	32. 28,0	33. 46,3	35. 4,5	36. 22,8	37. 41,1	38. 59,4	0. 40. 17,8	0. 41. 36,3	0. 42. 55,4	0. 44. 13,3	0. 45. 31,9	0. 46. 50,4	19
12	23. 24,2	24. 38,3	25. 52,4	27. 6,5	28. 20,6	29. 34,8	30. 49,0	32. 3,2	33. 17,5	34. 31,8	35. 36,1	37. 0,5	0. 38. 14,9	0. 39. 29,4	0 40. 43,8	0. 41. 58,4	0. 43. 12,9	0. 44. 27,6	18
13	22. 8,6	23. 18,6	24. 28,7	25. 38,9	26. 49,0	27. 59,2	29. 9,4	30. 19,6	31. 29,9	32. 40,2	33. 50,6	35. 0,9	0. 36. 11,3	0. 37. 21,7	0. 38. 32,3	0. 39. 42,7	0. 40. 53,3	0. 42. 3,9	17
14	20. 52,5	21. 58,6	23. 4,7	24. 10,8	25. 16,9	26. 23,1	27. 29,3	28. 35,5	29 41,7	30. 48,1	31. 54,3	33. 0,7	0. 34. 7,8	0. 35. 13,4	0. 36. 19,9	0. 37. 26,3	0. 38. 32,9	0. 39. 39,4	16
15	19. 36,1	20. 38,1	21. 40,2	22. 42,3	23. 44,4	24. 46,5	25. 48,6	26. 50,8	27. 53,0	28. 55,3	29. 57,5	30. 59,8	0. 32. 2,1	0. 32. 4,5	0. 34. 6,9	0. 35. 9,3	0. 36. 11,8	0. 37. 14,3	15
16	18. 19,3	19. 17,3	20. 15,3	21. 13,3	22. 11,4	23. 9,4	24. 7,5	25. 5,7	26. 3,8	27. 2,0	28. 0,2	28. 58,4	0. 29. 56,6	0. 30. 54,9	0. 31. 53,3	0. 32. 51,6	0. 33. 50,0	0. 34. 48,4	14
17	17. 2,2	17. 56,1	18. 50,0	19. 44,0	20. 38,0	21. 32,0	22. 26,0	23. 20,0	24. 14,1	25. 8,2	26. 2,3	26. 56,5	0. 27. 50,6	0. 28. 44,8	0. 29 39,0	0. 30. 33,3	0. 31. 27,6	0. 31. 21,9	13
18	15. 44,8	16. 34,6	17. 24,4	18. 14,3	19. 4,2	19. 54,1	20. 54,0	21. 34,1	22. 24,0	23. 14,0	24. 4,0	24. 54,0	0. 25. 44,1	0. 26. 34,2	0. 27. 24,3	0. 28. 14,5	0. 29. 4,6	0. 29 54,8	12
19	14. 27,0	15. 12,9	15. 58,5	16. 44,3	17. 30,1	18. 15,9	19. 1,8	19. 47,6	20. 33,4	21. 19,3	22. 5,2	22. 51,1	0. 23. 37,3	0. 24. 23,0	0. 25. 9,0	0. 25. 55,1	0. 26. 41,1	0 27. 27,2	11
20	13. 9,1	13. 50,7	14. 32,4	15. 14,0	15. 55,7	16. 37,3	17. 19,0	18, 0,7	18. 42,6	19. 24,2	20. 6,5	20. 47,9	0. 21. 29,6	0. 22. 11,5	0. 22. 53,3	0. 23. 35,2	0. 24. 17,2	0. 24. 59,1	10
21	11. 50,8	12. 28,3	13. 5,9	13. 43,4	14. 20,9	14. 58,5	15. 36,0	16. 13,6	16. 51,2	17. 28,8	18. 6,4	18. 44,1	0. 19. 21,8	0. 19. 59,5	0. 20. 37,2	0. 21. 14,9	0. 21. 52,7	0. 22. 30,5	9
22	10. 32,4	11. 5,8	11. 39,1	12. 12,5	12. 45,9	13. 19,3	13. 52,7	14. 26,2	14. 59,7	15. 33,1	16. 6,6	16. 40,1	0. 17. 14,2	0. 17. 47,1	0. 18. 20,7	0. 18 54,	0. 19. 27,8	0 20. 1,5	8
23	9. 13,8	9. 42,9	10. 12,2	10. 41,5	11. 10,7	11. 39,9	12. 9. 2	12. 38,5	13. 7,8	13. 37,1	14. 6,4	14. 35,7	0. 15. 5,1	0. 15. 34,4	0. 16. 3,8	0. 16. 33,2	0. 17. 2,6	0. 17. 32,1	7
24	7. 55,0	8. 20,0	8. 45,1	9. 10,2	9. 35,3	10. 0,3	10. 25,4	10. 50,5	11. 15,7	11. 40,8	12. 6,0	12. 31,1	0. 12. 56,3	0. 13. 21,5	0. 13. 46,7	0. 14. 11,9	0. 14. 37,1	0. 15. 2,4	6
25	6. 36,0	6. 56,9	7. 17,8	7. 38,8	7. 59,8	8. 20,6	8. 41,5	9. 2,4	9. 23,4	9. 44,3	10. 5,3	10. 26,3	0. 10. 47,3	0. 11. 8,3	0. 11. 29,3	0. 11. 50,3	0. 12. 11,3	0. 12. 32,4	5
26	5. 17,0	5. 33,7	5. 50,4	6. 7,2	6. 23,9	6. 40,6	6. 57,4	7. 14,2	7. 31,0	7. 47,7	8. 4,5	8. 21,3	0. 8. 38,0	0. 8. 54,9	0. 9. 11,7	0. 9. 28,5	0. 9. 45,3	0. 10. 2,2	4
27	3. 57,8	4. 10,3	4. 22,9	4. 35,5	4. 48,0	5. 0,5	5. 13,2	5. 25,7	5. 38,3	5. 50,9	6. 3,5	6. 16,1	0. 6. 28,7	0. 6. 41,3	0. 6. 53,9	0. 7. 6,5	0. 7. 19,1	0. 7. 31,8	3
28	2. 38,6	2. 47,0	2. 55,4	3. 3,7	3. 12,2	3. 20,4	3. 28,8	3. 37,2	3. 45,6	3. 54,0	4. 2,4	4. 10,8	0. 4. 19,2	0. 4. 27,5	0. 4. 36,0	0. 4. 44,4	0. 4. 52,9	0. 5. 1,3	2
29	1. 19,3	1. 23,6	1. 27,8	1. 31,9	1. 36,1	1. 40,2	1. 44,5	1. 48,6	1. 52,9	1. 57,1	2. 1,2	2. 5,5	0. 2. 9,6	0. 2. 13,9	0. 2. 18,0	0. 2. 22,3	0. 2. 26,5	0. 2. 30,7	1
30	0. 0,0	0. 0,0	0. 0.0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0. 0,0	0. 0. 0,0	0. 0. 0,0	0. 0. 0,0	0. 0. 0,0	0. 0. 0,0	0
	3° 10′	3° 20′	3° 30′	3° 40′	3° 50′	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20′	5° 30′	5° 40′	5° 50′	6° 0′	

Right Asc. { 3 Sig. / 9 Sig. } with approx. Lat. { N / S } − { S / N } +

TABLE XXXVI.

Correction of the approximate Latitude.

Ecliptic Declin.	Approximate Latitude. 10′	20′	30′	40′	50′	1° 0′	1° 10′	1° 20′	1° 30′	1° 40′	1° 50′	2° 0′	2° 10′	2° 20′	2° 30′	2° 40′	2° 50′	Ecliptic Declin.
°	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	°
0	0. 49, 7	1. 39, 3	2. 28, 9	3. 18, 6	4. 8, 2	4. 57, 8	5. 47, 5	6. 37, 2	7. 26, 7	8. 16, 4	9. 6, 1	9. 56, 4	10. 45, 4	11. 35, 1	12. 24, 8	13. 14, 4	14. 4, 2	0
1	0. 49, 6	1. 39, 1	2. 28, 7	3. 18, 3	4. 7, 8	4. 57, 3	5. 46, 9	6. 36, 4	7. 26, 0	8. 15, 5	9. 5, 1	9. 54, 7	10. 44, 3	11. 33, 9	12. 23, 6	13. 13, 2	14. 2, 8	1
2	0. 49, 3	1. 38, 6	2. 27, 9	3. 17, 2	4. 6, 5	4. 55, 8	5. 45, 2	6. 34, 4	7. 23, 7	8. 13, 1	9. 2, 4	9. 51, 7	10. 41, 1	11. 30, 5	12. 19, 8	13. 9, 2	13. 58, 5	2
3	0. 49, 0	1. 37, 8	2. 26, 6	3. 15, 6	4. 4, 4	4. 53, 3	5. 42, 2	6. 31, 1	7. 20, 0	8. 8, 8	8. 57, 8	9. 46, 7	10. 35, 6	11. 24, 5	12. 13, 5	13. 2, 4	13. 51, 4	3
4	0. 48, 4	1. 36, 6	2. 24, 9	3. 13, 1	4. 1, 5	4. 49, 7	5. 38, 1	6. 26, 4	7. 14, 7	8. 3, 0	8. 51. 3	9. 39, 6	10. 28, 0	11. 16, 3	12. 4, 6	12. 53, 0	13. 41, 4	4
5	0. 47, 6	1. 35, 1	2. 22, 6	3. 10, 1	3. 57, 7	4. 45, 2	5. 32, 8	6. 20, 3	7. 7, 8	7. 55, 4	8. 42, 9	9. 30, 5	10. 18, 1	11. 5, 7	11. 53, 3	12. 40, 9	13. 28, 5	5
6	0. 46, 6	1. 33, 2	2. 19, 8	3. 6, 4	3. 53, 0	4. 39, 8	5. 26, 3	6. 12, 8	6. 59, 5	7. 46, 1	8. 32, 7	9. 19, 4	10. 6, 0	10. 52, 7	11. 39, 3	12. 26, 0	13. 12, 7	6
7	0. 45, 5	1. 31, 0	2. 16, 5	3. 2, 0	3. 47, 5	4. 33, 0	5. 18, 6	6. 4, 0	6. 49, 0	7. 35, 1	8. 20, 6	9. 6, 1	9. 51, 7	10. 37, 2	11. 22, 8	12. 8, 3	12. 54, 0	7
8	0. 44, 2	1. 28, 5	2. 12, 7	2. 56, 9	3. 41, 1	4. 25, 4	5. 9, 6	5. 53, 2	6. 38, 1	7. 22, 3	8. 6, 6	8. 50, 8	9. 35, 1	10. 19, 4	11. 3, 6	11. 47, 9	12. 37, 2	8
9	0. 42, 8	1. 25, 5	2. 8, 2	2. 51, 1	3. 33, 9	4. 16, 6	4. 59, 4	5. 42, 2	6. 25, 0	7. 8, 8	7. 50, 6	8. 33, 4	9. 17, 9	9. 59, 0	10. 41, 8	11. 24, 7	12. 7, 6	9
10	0. 41, 2	1. 22, 3	2. 3, 4	2. 44, 5	3. 25, 7	4. 6, 9	4. 48, 0	5. 29, 2	6. 10, 3	6. 51, 5	7. 32, 7	8. 13, 8	8. 55, 0	9. 36, 2	10. 17, 4	10. 58, 8	11. 39, 8	10
11	0. 39, 4	1. 18, 7	1. 58, 0	2. 37, 3	3. 16, 7	3. 56, 0	4. 35, 4	5. 14, 7	5. 54, 0	6. 36, 0	7. 12, 7	7. 52, 1	8. 31, 4	9. 10, 9	9. 50, 2	10. 29, 6	11. 9, 0	11
12	0. 37, 2	1. 14, 7	1. 52, 0	2. 29, 4	3. 6, 7	3. 44, 0	4. 21, 4	4. 58, 7	5. 36, 1	6. 13, 3	6. 50, 8	7. 28, 3	8. 5, 5	8. 42, 9	9. 20, 3	9. 57, 7	10. 37, 3	12
13	0. 35, 3	1. 10, 3	1. 45, 4	2. 20, 6	2. 55, 8	3. 31, 0	4. 6, 0	4. 41, 3	5. 16, 4	5. 51, 6	6. 26, 6	7. 2. 0	7. 37, 2	8. 12, 4	8. 47, 5	9. 22, 8	9. 58, 0	13
14	0. 32, 8	1. 5, 6	1. 38, 4	2. 11, 2	2. 43, 9	3. 16, 4	3. 49, 5	4. 22, 3	4. 55, 1	5. 23, 9	6. 0, 7	6. 33, 5	7. 6, 3	7. 39, 1	8. 12, 0	8. 44, 8	9. 17, 7	14
15	0. 30, 2	1. 0, 4	1. 30, 7	2. 0, 9	2. 31, 1	3. 1, 3	3. 31, 5	4. 1, 8	4. 32, 0	5. 2, 4	5. 32, 5	6. 2, 7	6. 32, 9	7. 3, 2	7. 33, 5	8. 3, 8	8. 34, 0	15
16	0. 27, 6	0. 54, 9	1. 22, 4	1. 49, 7	2. 17, 3	2. 44, 7	3. 12, 2	3. 39, 6	4. 7, 1	4. 34, 6	5. 2, 0	5. 29, 5	5. 57, 0	6. 24, 5	6. 52, 0	7. 19, 5	7. 47, 0	16
17	0. 24, 5	0. 49, 0	1. 13, 5	1. 37, 9	2. 2, 4	2. 26, 9	2. 51, 4	3. 15, 8	3. 40, 4	4. 4, 9	4. 29, 4	4. 53, 9	5. 18, 4	5. 42, 9	6. 9, 4	6. 31, 9	6. 56, 5	17
18	0. 21, 3	0. 42, 6	1. 3, 9	1. 25, 3	1. 46, 6	2. 7, 9	2. 29, 2	2. 50, 5	3. 11, 8	3. 33, 1	3. 54, 4	4. 15, 8	4. 37, 1	4. 58, 4	5. 19, 8	5. 41, 1	6. 2, 4	18
19	0. 18, 9	0. 35, 8	0. 53, 7	1. 11, 7	1. 29, 6	1. 47, 5	2. 5, 3	2. 23, 4	2. 41, 2	2. 59, 2	3. 16, 7	3. 35, 1	3. 53, 0	4. 10, 9	4. 28, 9	4. 46, 8	5. 4, 8	19
20	0. 14, 3	0. 28, 6	0. 42, 9	0. 57, 3	1. 11, 6	1. 25, 9	1. 40, 2	1. 54, 5	2. 8, 8	2. 23, 1	2. 37, 4	2. 51, 7	3. 6, 1	3. 20, 4	3. 34, 7	3. 49, 1	4. 3, 4	20
21	0. 10, 5	0. 21, 0	0. 31, 4	0. 41, 9	0. 52, 4	1. 2, 9	1. 13, 4	1. 23, 8	1. 34, 3	1. 44, 7	1. 55, 2	2. 5, 7	2. 16, 1	2. 26, 7	2. 37, 2	2. 47, 7	2. 58, 1	21
22	0. 6, 3	0. 12, 8	0. 19, 2	0. 25, 6	0. 32, 1	0. 39, 3	0. 44, 9	0. 51, 3	0. 57, 7	1. 4, 1	1. 10, 5	1. 16, 9	1. 23, 3	1. 29, 7	1. 36, 1	1. 42, 5	1. 49, 1	22
23	0. 2, 1	0. 4, 2	0. 6, 3	0. 8, 4	0. 10, 5	0. 12, 6	0. 14, 7	0. 16, 8	0. 18, 9	0. 21, 0	0. 23, 1	0. 25, 2	0. 27, 3	0. 29, 6	0. 31, 5	0. 33, 6	0. 35, 7	23
23° 28′	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0 0, 0	0. 0, 0	0. 0, 0	0. 0, 0	0. 0. 0	0. 0. 0	23° 28

Subtract the Number taken out of this Table from the approximate Latitude, the Remainder is the Latitude to the Obliquity of the Ecliptic 23° 28′, to be corrected by means of Table XXXVIII.

TABLE XXXVI. continued.

Correction of the approximate Latitude.

Ecliptic Declin.	Approximate Latitude. 3° 0′	3° 10′	3° 20′	3° 30′	3° 40′	3° 50	4° 0′	4° 10′	4° 20′	4° 30′	4° 40′	4° 50′	5° 0′	5° 10′	5° 20′	5° 30′	5° 40′	5° 50′	6° 0′	Ecliptic Declin.
°	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	°
0	14. 53,7	15. 43,8	16.33,5	17.23,3	18.13,1	19. 2,9	19.52,7	20.42,6	21.32,5	22.22,4	23.12,2	24. 2,2	24.52,1	25.42,1	26.32,1	27.22,1	28.12,1	29. 2,2	29.52,3	0
1	14. 52,4	15. 42,1	16.31,8	17.21,5	18.11,3	19. 1,0	19.50,7	20.40,5	21.30,3	22.20,0	23. 9,9	23.59,6	24.49,6	25.39,4	26.29,3	27.19,3	28. 9,3	28.59,4	29.49,3	1
2	14. 48,0	15. 37,4	16.26,8	17.16,3	18. 5,7	18.55,2	19.44,9	20.34,2	21.23,7	22.13,3	23. 2,8	23.52,4	24.42,1	25.31,8	26.21,3	27.11,0	28. 0,7	28.50,4	29.40,2	2
3	14. 40,3	15. 29,4	16.18,4	17. 7,4	17.56,3	18.45,5	19.34,9	20.23,7	21.12,8	22. 1,9	22.51,1	23.40,2	24.29,4	25.18,6	26. 7,9	26.57,1	27.46,4	28.35,7	29.25,1	3
4	14. 29,8	15. 18,2	16. 6,6	16.55,1	17.43,5	18.32,0	19.20,4	20. 9,0	20.57,5	21.46,0	22.34,6	23.23,1	24.11,7	25. 0,3	25.49,0	26.37,6	27.26,3	28.15,0	29. 3,8	4
5	14. 16,1	15. 3,8	15.51,4	16.39,1	17.26,8	18.14,8	19. 2,2	19.50,0	20.37,7	21.25,5	22.13,3	23. 1,1	23.48,9	24.36,8	25.24,6	26.12,6	27. 0,5	27.48,4	28.36,4	5
6	13. 59,4	14. 46,1	15.32,8	16.19,6	17. 6,3	17.53,1	18.39,9	19.26,7	20.13,8	21. 0,4	21.47,2	22,34,1	23.21,0	24. 7,9	24.54,9	25.41,8	26.28,8	27.15,8	28. 2,8	6
7	13. 39,5	14. 25,1	15.10,8	15.56,4	16.42,4	17.27,7	18.13,4	18.59,1	19.44,8	20.30,6	21.16,3	22. 2,1	22.47,9	23.33,7	24.19,5	25. 5,4	25.51,7	26.37,2	27.23,1	7
8	13. 16,6	14. 0,9	14.45,2	15.29,6	16.14,1	16.58,4	17.42,8	18.27,5	19.11,6	19.56,1	20.40,8	21.25,0	22. 9,6	22.54,1	23.38,6	24.23,2	25. 9,8	25.52,4	26.37,0	8
9	12. 50,4	13. 33,3	14.16,2	14.59,1	15.42,0	16.24,9	17. 7,9	17.50,8	18.33,8	19.16,8	19.59,8	20.42,8	21.25,9	22. 9,0	22.52,1	23.35,2	24.18,3	25. 1,4	25.45,6	9
10	12. 21,1	13. 2,3	13.43,8	14.28,8	15. 6,4	15.47,4	16.28,7	17.10,0	17.51,3	18.32,7	19.14,1	19.55,5	20.36,9	21.18,3	21.59,8	22.41,2	23.22,7	24. 4,3	24.45,4	10
11	11. 48,4	12. 27,9	13. 7,2	13.46,8	14.26,2	15. 5,7	15.45,2	16.25,3	17. 4,2	17.43,8	18.23,3	19. 2,9	19.44,4	20.22,2	21. 1,7	21.41,3	22.21,0	23. 0,7	23.40,4	11
12	11. 12,5	11. 50,0	12.27,4	13. 4,8	13.42,3	14.19,8	14.57,6	15.34,8	16.12,3	16.49,8	17.27,4	18. 4,9	18.42,5	19.20,1	19.57,7	20.35,3	21.13,0	21.50,7	22.28,4	12
13	10. 33,2	11. 8,5	11.43,7	12.19,0	12.54,3	13.29,5	14. 4,8	14.40,2	15.14,4	15.50,8	16.26,1	17. 1,5	17.36,9	18.12,3	18.47,7	19.23,2	19.58,2	20.34,1	21. 9,6	13
14	9. 50,3	10. 23,4	10.56,2	11.29,1	12. 2,0	12.34,9	13. 9,8	13.40,8	14.13,7	14.47,0	15.19,5	15.52,6	16.25,6	16 58,6	17.31,7	18. 4,7	18.38,8	19.10,9	20. 7,9	14
15	9. 4,3	9. 34,6	10. 4,8	10.35,1	11. 5,5	11.35,8	12. 6,2	12.36,5	13. 6,9	13.37,2	14. 7,7	14.38,1	15. 8,9	15.38,9	16. 9,3	16.39,8	17.10,3	17.40,8	18.11,3	15
16	8. 14,5	8. 42,0	9. 9,5	9.37,1	10. 4,6	10.35,2	10.59,7	11.27,3	11.54,8	12.22,5	12.50,5	13.17,7	13.45,3	14.13,0	14.40,7	15. 8,3	15.36,0	16. 3,7	16.31,4	16
17	7. 21,0	7. 45,5	8.10,1	8.34,7	8.59,2	9.23,8	9.48,4	10.15,3	10.37,6	11. 2,0	11.26,8	11.51,5	12.16,1	12.40,8	13. 5,4	13.30,1	13.54,8	14.19,5	14.44,3	17
18	6. 23,8	6. 45,2	7. 6,5	7.27,9	7.49,3	8.10,7	8.32,1	8.53,5	9.18,3	9.36,8	9.57,7	10.19,2	10.40,6	11. 2,1	11.23,6	11.45,0	12. 6,5	12.28,0	12.49,·	18
19	5. 22,8	5. 40,6	5.58,6	6.16,6	6 34,6	6.52,6	7.10,6	7.28,6	7.47,6	8. 4,6	8.22,6	8.40,7	8 58,9	9.16,7	9.34,8	9.52,9	10.11,0	10.29,0	10.47,1	19
20	4. 17,7	4. 32,1	4.46,4	5. 0,8	5.15,1	5.29,8	5.43,9	5.58,2	6.12,6	6.27,0	6.41,3	6.55,8	7.10,2	7.24,6	7.39,0	7.53,4	8. 7,9	8.22,3	8.36,8	20
21	3, 8,6	3. 19,1	3.29,6	3.40,9	3.50,6	4. 1,7	4.11,7	4.22,2	4.32,7	4.43,3	4.53,8	5. 4,3	5.14,9	5.25,4	5.36,0	5.47,0	5.57,1	6. 7,1	6.18,2	21
22	1.55,4	2. 1,8	2. 8,2	2.14,6	2.21,1	2.27,5	2.33,9	2.39,3	2.46,8	2.53,2	2.59,7	3. 6,1	3.12,6	3.18,6	3.25,4	3.31,9	3.38,4	3.44,9	3.51,3	22
23	0. 37,8	0. 39,8	0.42,0	0.44,1	0.46,2	0.48,3	0.50,4	0.52,5	0.54,6	0.56,7	0.58,8	1. 0,9	1. 3,0	1. 5,1	1. 7,2	1. 9,3	1.11,5	1.13,6	1.15,7	23
23° 28′	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	0. 0,0	23° 28′

Subtract the Number taken out of this Table from the approximate Latitude, the Remainder is the Latitude, according to the Obliquity of the Ecliptic 23° 28′, to be corrected by means of Table XXXVIII.

TABLE XXXVII.

Correction of the Longitude found by the preceding Tables, for a Diminution of the Obliquity of the Ecliptic of 1′; viz. from 23°. 28′. 0′. to 23°. 27′. 0″.

+ / —	— / +	North Latitude. South Latitude.								
Long.	Long.	1°	2°	3°	4°	5°	6°	45°	Long.	Long.
S. D.	S. D.	″	″	″	″	″	″	″	S. D.	S. D.
6. 0	0. 0	1,0	2,1	3,1	4,2	5,2	6,3	60,0	6. 0	12. 0
6. 5	0. 5	1,0	2,1	3,1	4,2	5,2	6,2	59,7	5.25	11.25
6.10	0.10	1,0	2,1	3,1	4,1	5,1	6,2	59,1	5.20	11.20
6.15	0.15	1,0	2,0	3,0	4,0	5,0	6,1	57,9	5.15	11.15
6.20	0.20	0,9	1,9	2,9	3,9	4,9	5,9	56,4	5.10	11.10
6.25	0.25	0,9	1,9	2,8	3,8	4,7	5,7	54,4	5. 5	11. 5
7. 0	1. 0	0,9	1,8	2,7	3,6	4,5	5,4	51,9	5. 0	11. 0
7. 5	1. 5	0,8	1,7	2,6	3,4	4,3	5,1	49,1	4.25	10.25
7.10	1.10	0,8	1,6	2,4	3,2	4,0	4,8	45,9	4.20	10.20
7.15	1.15	0,7	1,5	2,2	3,0	3,7	4,4	42,4	4.15	10.15
7.20	1.20	0,7	1,3	2,0	2,7	3,4	4,0	38,5	4.10	10.10
7.25	1.25	0,6	1,2	1,8	2,4	3,0	3,6	34,4	4. 5	10. 5
8. 0	2. 0	0,5	1,0	1,6	2,1	2,6	3,1	30,0	4. 0	10. 0
8. 5	2. 5	0,4	1,0	1,3	1,8	2,2	2,6	25,3	3.25	9.25
8.10	2.10	0,3	0,7	1,1	1,4	1,8	2,1	20,5	3.20	9.20
8.15	2.15	0,2	0,5	0,8	1,1	1,4	1,6	15,5	3.15	9.15
8.20	2.20	0,2	0,3	0,5	0,7	0,9	1,1	10,4	3.10	9.10
8.25	2.25	0,1	0,1	0,2	0,3	0,4	0,5	5,2	3. 5	9. 5
9. 0	3. 0	0,0	0,0	0,0	0,1	0,1	0,1	0,0	3. 0	9. 0
		1°	2°	3°	4°	5°	6°	45°		
		South Latitude. North Latitude.							— / +	+ / —

If the Latitude exceed 6°, with the given Longitude take a Number out of the Column intituled 45°, and multiply it by the natural Tangent of the Latitude.

If the Obliquity of the Ecliptic be greater than 23° 28′, change the Sign of the Table.

TABLE [K]

TABLE XXXVIII.

Correction of the Latitude found by the preceding Tables, for a Diminution of the Obliquity of the Ecliptic of 1′; viz. from 23°. 28′. 0″. to 23°. 27′. 0″.

— / +	+ / —	Lat. North. Lat. South.			— / +	+ / —	Lat. North. Lat. South.			— / +	+ / —	Lat. North. Lat. South.		
Long.	Long.	C. of L.	Lon.	Long	Long.	Long.	C. of L.	Lon.	Long.	Long.	Long.	C. of L.	Lon.	Long.
S. D.	S. D.	″	S. D	S. D.	S. D.	S. D.	″	S. D.	S. D.	S. D	S. D	″	S. D.	S. D.
6. 0	0. 0	0,0	6. 0	12. 0	7. 0	1. 0	30,0	5. 0	11. 0	8. 0	2 0	51,9	4. 0	10. 0
6. 1	0. 1	1,0	5.29	11.29	7. 1	1. 1	30,9	4.29	10.29	8. 1	2. 1	52,5	3.29	9.29
6. 2	0. 2	2,1	5.28	11.28	7. 2	1. 2	31,7	4.28	10.28	8. 2	2. 2	52,9	3.28	9.28
6. 3	0. 3	3,1	5.27	11.27	7. 3	1. 3	32,6	4.27	10.27	8. 3	2. 3	53,4	3.27	9.27
6. 4	0. 4	4,2	5.26	11.26	7. 4	1. 4	33,5	4.26	10.26	8. 4	2. 4	53,9	3.26	9.26
6. 5	0. 5	5,2	5.25	11.25	7. 5	1. 5	34,4	4.25	10.25	8. 5	2. 5	54,4	3.25	9.25
6. 6	0. 6	6,3	5.24	11.24	7. 6	1. 6	35,2	4.24	10.24	8. 6	2. 6	54,8	3.24	9.24
6. 7	0. 7	7,3	5.23	11.23	7. 7	1. 7	36,1	4.23	10.23	8. 7	2. 7	55,2	3.23	9.23
6. 8	0. 8	8,3	5.22	11.22	7. 8	1. 8	36,9	4.22	10.22	8. 8	2. 8	55,6	3.22	9.22
6. 9	0. 9	9,4	5.21	11.21	7. 9	1. 9	37,7	4.21	10.21	8. 9	2. 9	56,0	3.21	9.21
6.10	0.10	10,4	5.20	11.20	7.10	1.10	38,5	4.20	10.20	8.10	2.10	56,4	3.20	9.20
6.11	0.11	11,4	5.19	11.19	7.11	1.11	39,3	4.19	10.19	8.11	2.11	56,7	3.19	9.19
6.12	0.12	12,5	5.18	11.18	7.12	1.12	40,1	4.18	10.18	8.12	2.12	57,0	3.18	9.18
6.13	0.13	13,5	5.17	11.17	7.13	1.13	40,9	4.17	10.17	8.13	2.13	57,4	3.17	9.17
6.14	0.14	14,5	5.16	11.16	7.14	1.14	41,6	4.16	10.16	8.14	2.14	57,6	3.16	9.16
6.15	0.15	15,5	5.15	11.15	7.15	1.15	42,4	4.15	10.15	8.15	2.15	57,9	3.15	9.15
6.16	0.16	16,5	5.14	11.14	7.16	1.16	43,1	4.14	10.14	8.16	2.16	58,2	3.14	9.14
6.17	0.17	17,5	5.13	11.13	7.17	1.17	43,8	4.13	10.13	8.17	2.17	58,4	3.13	9.13
6.18	0.18	18,5	5.12	11.12	7.18	1.18	44,6	4.12	10.12	8.18	2.18	58,7	3.12	9.12
6.19	0.19	19,5	5.11	11.11	7.19	1.19	45,3	4.11	10.11	8.19	2.19	58,9	3.11	9.11
6.20	0.20	20,5	5.10	11.10	7.20	1.20	45,9	4.10	10.10	8.20	2.20	59,1	3.10	9.10
6.21	0.21	21,5	5. 9	11. 9	7.21	1.21	46,6	4. 9	10. 9	8.21	2.21	59,2	3. 9	9. 9
6.22	0.22	22,5	5. 8	11. 8	7.22	1.22	47,2	4. 8	10. 8	8.22	2.22	59,4	3. 8	9. 8
6.23	0.23	23,4	5. 7	11. 7	7.23	1.23	47,9	4. 7	10. 7	8.23	2.23	59,5	3. 7	9. 7
6.24	0.24	24,4	5. 6	11. 6	7.24	1.24	48,5	4. 6	10. 6	8.24	2.24	59,6	3. 6	9. 6
6.25	0.25	25,3	5. 5	11. 5	7.25	1.25	49,1	4. 5	10. 5	8.25	2.25	59,7	3. 5	9. 5
6.26	0.26	26,3	5. 4	11. 4	7.26	1.26	49,7	4. 4	10. 4	8.26	2.26	59,8	3. 4	9. 4
6.27	0.27	27,2	5. 3	11. 3	7.27	1.27	50,3	4. 3	10. 3	8.27	2.27	59,9	3. 3	9. 3
6.28	0.28	28,1	5. 2	11. 2	7.28	1.28	50,9	4. 2	10. 2	8.28	2.28	59,9	3. 2	9. 2
6.29	0.29	29,1	5. 1	11. 1	7.29	1.29	51,4	4. 1	10. 1	8.29	2.29	60,0	3. 1	9. 1
7. 0	1. 0	30,0	5. 0	11. 0	8. 0	1. 0	51,9	4. 0	10. 0	9. 0	3. 0	60,0	3. 0	9. 0
Lat. South. Lat. North.			—	+	Lat. South. Lat. North.			—	+	Lat. South. Lat. North.			—	+

If the Obliquity of the Ecliptic be greater than 23° 28′, change the Sign of the Table.

TABLE XXXIX.

Containing a Logarithm to be added to the logistic Logarithm of the Difference of the ☉'s Zenith Distances when he has nearly the same Declination on each Side of the Solstice, in order to find the logistic Logarithm of the correspondent Variation of Right Ascension. ARG. ☉'s Long.

☉'s Long. S. D. S.	Logarith.	Diff.	☉'s Long. S. D. S.	☉'s Long. S. D. S.	Logarith.	Diff.	☉'s Long. S. D. S.
0. 0. 6	9,6377	1	6. 0. 12	1. 0. 7	9,5664	50	5. 0. 11
0. 1. 6	9,6376	2	5. 29. 11	1. 1. 7	9,5614	52	4. 29. 10
0. 2. 6	9,6374	4	5. 28. 11	1. 2. 7	9,5562	54	4. 28. 10
0. 3. 6	9,6370	6	5. 27. 11	1. 3. 7	9,5508	56	4. 27. 10
0. 4. 6	9,6364	7	5. 26. 11	1. 4. 7	9,5452	58	4. 26. 10
0. 5. 6	9,6357	8	5. 25. 11	1. 5. 7	9,5394	60	4. 25. 10
0. 6. 6	9,6349	10	5. 24. 11	1. 6. 7	9,5334	62	4. 24. 10
0. 7. 6	9,6339	12	5. 23. 11	1. 7. 7	9,5272	65	4. 23. 10
0. 8. 6	9,6327	13	5. 22. 11	1. 8. 7	9,5207	66	4. 22. 10
0. 9. 6	9,6314	14	5. 21. 11	1. 9. 7	9,5141	69	4. 21. 10
0. 10. 6	9,6300	16	5. 20. 11	1. 10. 7	9,5072	71	4. 20. 10
0. 11. 6	9,6284	18	5. 19. 11	1. 11. 7	9,5001	74	4. 19. 10
0. 12. 6	9,6266	20	5. 18. 11	1. 12. 7	9,4927	76	4. 18. 10
0. 13. 6	9,6246	21	5. 17. 11	1. 13. 7	9,4851	78	4. 17. 10
0. 14. 6	9,6225	22	5. 16. 11	1. 14. 7	9,4773	81	4. 16. 10
0. 15. 6	9,6203	24	5. 15. 11	1. 15. 7	9,4692	84	4. 15. 10
0. 16. 6	9,6179	26	5. 14. 11	1. 16. 7	9,4608	86	4. 14. 10
0. 17. 6	9,6153	27	3. 13. 11	1. 17. 7	9,4522	89	4. 13. 10
0. 18. 6	9,6126	29	5. 12. 11	1. 18. 7	9,4433	93	4. 12. 10
0. 19. 6	9,6097	31	5. 11. 11	1. 19. 7	9,4340	95	4. 11. 10
0. 20. 6	9,6066	33	5. 10. 11	1. 20. 7	9,4245	98	4. 10. 10
0. 21. 6	9,6033	34	5. 9. 11	1. 21. 7	9,4147	102	4. 9. 10
0. 22. 6	9,5999	35	5. 8. 11	1. 22. 7	9,4045	105	4. 8. 10
0. 23. 6	9,5964	38	5. 7. 11	1. 23. 7	9,3940	109	4. 7. 10
0. 24. 6	9,5926	39	5. 6. 11	1. 24. 7	9,3831	113	4. 6. 10
0. 25. 6	9,5887	41	5. 5. 11	1. 25. 7	9,3718	116	4. 5. 10
0. 26. 6	9,5846	43	5. 4. 11	1. 26. 7	9,3602	121	4. 4. 10
0. 27. 6	9,5803	44	5. 3. 11	1. 27. 7	9,3481	125	4. 3. 10
0. 28. 6	9,5759	47	5. 2. 11	1. 28. 7	9,3356	130	4. 2. 10
0. 29. 6	9,5712	48	5. 1. 11	1. 29. 7	9,3226	134	4. 1. 10
1. 0. 7	9,5664		5. 0. 11	2. 0. 8	9,3092		4. 0. 10
☉'s Long.	Logarith.	Diff.	☉'s Long.	☉'s Long.	Logarith.	Diff.	☉'s Long.

TABLE XL.

Mean Precession of the equinoctial Points in Longitude for complete Years.

Years.	Prec. ′ ″	Years.	Prec. ′ ″	Years.	Prec. ° ′ ″	Years.	Prec. ° ′ ″
1	0. 50, 3	31	26. 0, 8	61	0. 51. 11, 3	91	1. 16. 21, 8
2	1. 40, 7	32	26. 51, 2	62	0. 52. 1, 7	92	1. 17. 12, 2
3	2. 31, 0	33	27. 41, 5	63	0. 52. 52, 0	93	1. 18. 2, 5
4	3. 21, 4	34	28. 31, 9	64	0. 53. 42, 4	94	1. 18. 52, 9
5	4. 11, 7	35	29, 22, 2	65	0. 54. 32, 7	95	1. 19. 43, 2
6	5. 2, 1	36	30. 12, 6	66	0. 55. 23, 1	96	1. 20. 33, 6
7	5. 52, 4	37	31. 2, 9	67	0. 56. 13, 4	97	1. 21. 23, 9
8	6. 42, 8	38	31. 53, 3	68	0. 57. 3, 8	98	1. 22. 14, 3
9	7. 33, 1	39	32. 43, 6	69	0. 57. 54, 1	99	1. 23. 4, 6
10	8. 23, 5	40	33. 34, 0	70	0. 58. 44, 5	100	1. 23. 55, 0
11	9. 13, 8	41	34. 24, 3	71	0. 59. 34, 8	200	2. 47. 49, 9
12	10. 4, 2	42	35. 14, 7	72	1. 0. 25, 2	300	4. 11. 44, 9
13	10. 54, 5	43	36. 5, 0	73	1. 1. 15, 5	400	5. 35. 39, 9
14	11. 44, 9	44	36. 55, 4	74	1. 2. 5, 9	500	6. 59 34, 8
15	12. 35, 2	45	37. 45, 7	75	1. 2. 56, 2	600	8. 23. 29, 8
16	13. 25, 6	46	38. 36, 1	76	1. 3. 46, 6	700	9. 47. 24, 8
17	14. 15, 9	47	39. 26, 4	77	1. 4. 36, 9	800	11. 11. 19, 7
18	15. 6, 3	48	40. 16, 8	78	1. 5. 27, 3	900	12. 35. 14, 7
19	15. 56, 6	49	41. 7, 1	79	1. 6. 17, 6	1000	13. 59. 9, 7
20	16. 47, 0	50	41. 57, 5	80	1. 7. 8, 0	2000	27. 58. 19, 3
21	17. 37, 3	51	42. 47, 8	81	1. 7. 58, 3	3000	41. 57. 29, 0
22	18. 27, 7	52	43. 38, 2	82	1. 8. 48, 7	4000	55. 56. 38, 6
23	19. 18, 0	53	44. 28, 5	83	1. 9. 39, 0	5000	69. 55. 48, 3
24	20. 8, 4	54	45. 18, 9	84	1. 10. 29, 4		
25	20. 58, 7	55	46. 9, 2	85	1. 11. 19, 7		
26	21. 49, 1	56	46. 59, 6	86	1. 12. 10, 1		
27	22. 39, 4	57	47. 49, 9	87	1. 13. 0, 4		
28	23. 29, 8	58	48. 40, 3	88	1. 13. 50, 8		
29	24. 20, 1	59	49. 30, 6	89	1. 14. 41, 1		
30	25. 10, 5	60	50. 21, 0	90	1. 15. 31, 5		

TABLE XLI.

Preceſſion of the Equinoctial Points in Longitude to every Day in the Year, including the ſolar Equation of Preceſſion.

Days.	January.	February	March.	April.	May.	June.	July	Auguſt	Septemb.	October.	Novemb.	Decemb.
	"	"	"	"	"	"	"	"	"	"	"	"
1	0,6	5,6	9,0	12,1	15,5	20,2	25,5	30,5	34,4	37,4	40,9	45,4
2	0,8	5,7	9,1	12,2	15,7	20,4	25,6	30,6	34,5	37,5	41,0	45,6
3	1,0	5,8	9,2	12,3	15,8	20,6	25,8	30,8	34,6	37,6	41,2	45,8
4	1,1	6,0	9,3	12,4	15,9	20,7	26,0	30,9	34,7	37,7	41,3	45,9
5	1,3	6,1	9,4	12,5	16,1	20,9	26,2	31,1	34,8	37,8	41,4	46,1
6	1,5	6,3	9,5	12,6	16,2	21,1	26,3	31,2	34,9	37,9	41,6	46,3
7	1,6	6,4	9,6	12,7	16,3	21,3	26,5	31,3	35,0	38,0	41,7	46,4
8	1,8	6,5	9,7	12,8	16,5	21,4	26,7	31,5	35,2	38,2	41,9	46,6
9	2,0	6,7	9,8	12,9	16,6	21,6	26,8	31,6	35,3	38,3	42,0	46,8
10	2,1	6,8	9,9	13,0	16,8	21,8	27,0	31,7	35,4	38,4	42,1	47,0
11	2,3	6,9	10,0	13,1	16,9	22,0	27,2	31,9	35,5	38,5	42,3	47,1
12	2,5	7,0	10,1	13,3	17,1	22,1	27,4	32,0	35,6	38,6	42,4	47,3
13	2,6	7,2	10,2	13,4	17,2	22,3	27,5	32,2	35,7	38,7	42,6	47,5
14	2,8	7,3	10,3	13,5	17,4	22,5	27,7	32,3	35,8	38,8	42,7	47,7
15	3,0	7,4	10,4	13,6	17,5	22,7	27,8	32,4	35,9	38,9	42,9	47,8
16	3,1	7,5	10,5	13,7	17,7	22,8	28,0	32,5	36,0	39,0	43,0	48,0
17	3,3	7,6	10,6	13,8	17,8	23,0	28,2	32,7	36,1	39,1	43,2	48,2
18	3,4	7,8	10,7	13,9	18,0	23,2	28,3	32,8	36,2	39,2	43,3	48,4
19	3,6	7,9	10,8	14,0	18,1	23,4	28,5	32,9	36,3	39,3	43,5	48,6
20	3,8	8,0	10,9	14,2	18,3	23,5	28,7	33,0	36,4	39,4	43,6	48,7
21	3,9	8,1	11,0	14,3	18,4	23,7	28,8	33,2	36,5	39,6	43,8	48,9
22	4,1	8,2	11,1	14,4	18,6	23,9	29,0	33,3	36,6	39,7	43,9	49,1
23	4,2	8,3	11,2	14,5	18,8	24,1	29,1	33,4	36,7	39,8	44,1	49,3
24	4,4	8,4	11,3	14,6	18,9	24,2	29,3	33,5	36,8	39,9	44,3	49,5
25	4,5	8,6	11,4	14,8	19,1	24,4	29,4	33,6	36,9	40,0	44,4	49,6
26	4,7	8,7	11,5	14,9	19,2	24,6	29,6	33,7	37,0	40,2	44,6	49,8
27	4,8	8,8	11,6	15,0	19,4	24,8	29,7	33,9	37,1	40,3	44,8	50,0
28	5,0	8,9	11,7	15,1	19,6	24,9	29,9	34,0	37,2	40,4	44,9	50,2
29	5,1		11,8	15,3	19,7	25,1	30,0	34,1	37,2	40,5	45,1	50,4
30	5,3		11,9	15,4	19,9	25,3	30,2	34,2	37,3	40,7	45,3	50,5
31	5,4		12,0		20,1		30,3	34,3		40,8		50,7

In the Months of Jan. and Feb. in Leap-year, take out for the Day preceding the given Day.

TABLE XLIII.

Equation of the Equinoxes in Longitude.

Arg. Long. ☽'s ☊.

S	0 —	1 —	2 —	S
S	6 +	7 +	8 +	S
D	"	"	"	D
0	0,0	8,9	15,5	30
1	0,3	9,2	15,6	29
2	0,6	9,5	15,8	28
3	0,9	9,7	15,9	27
4	1,2	10,0	16,1	26
5	1,6	10,2	16,2	25
6	1,9	10,5	16,3	24
7	2,2	10,8	16,4	23
8	2,5	11,0	16,6	22
9	2,8	11,2	16,7	21
10	3,1	11,5	16,8	20
11	3,4	11,7	16,9	19
12	3,7	12,0	17,0	18
13	4,0	12,2	17,1	17
14	4,3	12,4	17,2	16
15	4,6	12,6	17,3	15
16	4,9	12,8	17,3	14
17	5,2	13,1	17,4	13
18	5,5	13,3	17,5	12
19	5,8	13,5	17,5	11
20	6,1	13,7	17,6	10
21	6,4	13,9	17,6	9
22	6,7	14,1	17,7	8
23	7,0	14,3	17,7	7
24	7,3	14,5	17,8	6
25	7,5	14,6	17,8	5
26	7,8	14,8	17,8	4
27	8,1	15,0	17,8	3
28	8,4	15,1	17,9	2
29	8,7	15,3	17,9	1
30	8,9	15,5	17,9	0
S	5 —	4 —	3 —	S
S	11 +	10 +	9 +	S

TABLE XLIII.

To find the Aberration of a Star in Longitude.

Multiply by Secant of the Star's Lat.

Arg. Long. ☉ — Long. of Star.

S.	0 —	1 —	2 —	S.
S.	6 +	7 +	8 +	S.
D.	"	"	"	D.
0	20, 0	17, 3	10, 0	30
1	20, 0	17, 1	9, 7	29
2	20, 0	17, 0	9, 4	28
3	20, 0	16, 8	9, 1	27
4	20, 0	16, 6	8, 8	26
5	19, 9	16, 4	8, 5	25
6	19, 9	16, 2	8, 1	24
7	19, 9	16, 0	7, 8	23
8	19, 8	15, 8	7, 5	22
9	19, 8	15, 5	7, 2	21
10	19, 7	15, 3	6, 8	20
11	19, 6	15, 1	6, 5	19
12	19, 6	14, 9	6, 2	18
13	19, 5	14, 6	5, 8	17
14	19, 4	14, 4	5, 5	16
15	19, 3	14, 1	5, 2	15
16	19, 2	13, 9	4, 8	14
17	19, 1	13, 6	4, 5	13
18	19, 0	13, 4	4, 2	12
19	18, 9	13, 1	3, 8	11
20	18, 8	12, 9	3, 5	10
21	18, 7	12, 6	3, 1	9
22	18, 5	12, 3	2, 8	8
23	18, 4	12, 0	2, 4	7
24	18, 3	11, 8	2, 1	6
25	18, 1	11, 5	1, 7	5
26	18, 0	11, 2	1, 4	4
27	17, 8	10, 9	1, 0	3
28	17, 7	10, 6	0, 7	2
29	17, 5	10, 3	0, 4	1
30	17, 3	10, 0	0, 0	0
S.	11 —	10 —	9 —	S.
S.	5 +	4 +	3 +	S.

To find the Aberration of a Star in Latitude:

Take 3 Signs from the Argument of the Aberration in Longitude, and with the Remainder take a Number out of the Table, and multiply it by the Sine of the Star's Latitude.

TABLE XLIV.

To find the Secular Variation of Longitude of the Northern Stars.

S.	0 —	1 —	2 —	3 +	4 +	5 +
S.	6 +	7 +	8 +	9 —	10 —	11 —
D.	"	"	"	"	"	"
0	47, 5	37, 8	18, 0	6, 7	29, 5	44, 5
3	47, 1	36, 2	15, 6	9, 2	31, 5	45, 4
6	46, 6	34, 5	13, 2	11, 6	33, 4	46, 1
9	45, 9	32, 8	10, 8	14, 0	35, 1	46, 8
12	45, 1	30, 8	8, 4	16, 4	36, 8	47, 3
15	44, 2	28, 8	5, 9	18, 8	38, 3	47, 6
18	43, 2	26, 8	3, 4	21, 0	39, 8	47, 9
21	42, 0	24, 7	0, 9	23, 3	41, 1	48, 0
24	40, 7	22, 5	1, 7	25, 4	42, 4	48, 0
27	39, 3	20, 2	4, 2	27, 5	43, 5	47, 8
30	37, 8	18, 0	6, 7	29, 5	44, 5	47, 5

Multiply by the Tangent of the Latitude, and if the Latitude is South change the Signs.

TABLE XLV.

Secular Variation of Latitude of the Northern Stars.

S.	0 +	1 +	2 +	3 +	4 +	5 +
S.	6 —	7 —	8 —	9 —	10 —	11 —
D.	"	"	"	"	"	"
0	6, 7	29, 5	44, 5	47, 5	37, 8	18, 0
3	9, 2	31, 5	45, 4	47, 1	36, 2	15, 6
6	11, 6	33, 4	46, 1	46, 6	34, 5	13, 2
9	14, 0	35, 1	46, 8	45, 9	32, 8	10, 8
12	16, 4	36, 8	47, 3	45, 1	30, 8	8, 4
15	18, 8	38, 3	47, 6	44, 2	28, 8	5, 9
18	21, 0	39, 8	47, 9	43, 2	26, 8	3, 4
21	23, 3	41, 1	48, 0	42, 0	24, 7	0, 9
24	25, 4	42, 4	48, 0	40, 7	22, 5	1, 7
27	27, 5	43, 5	47, 8	39, 3	20, 2	4, 2

To find the Secular Variation of Latitude of the Southern Stars, change the Sign.

TABLE XLVI.

Equation of the Sun's Longitude, depending on the Moon's Position.

Argument.

Long. ☽ — Long. ☉.

S	0 +	1 +	2 +	S
S	6 —	7 —	8 —	S
°	″	″	″	°
0	0,0	3,5	6,1	30
5	0,6	4,1	6,4	25
10	1,2	4,5	6,7	20
15	1,8	5,0	6,9	15
20	2,4	5,4	7,0	10
25	3,0	5,8	7,1	5
30	3,5	6,1	7,1	0
S	+ 5	+ 4	+ 3	S
S	— 11	— 10	— 9	S

TABLE XLVII.

Equation of the Sun's Longitude, depending on Jupiter's Action.

Argument.

Num. II. 4.

	0	100	200	300	400	
	+	+	+	+	+	
N	″	″	″	″	″	N
0	0,0	7,1	8,9	5,7	2,0	100
10	0,8	7,5	8,7	5,3	1,7	90
20	1,6	8,0	8,5	4,9	1,4	80
30	2,4	8,3	8,3	4,5	1,2	70
40	3,2	8,6	8,0	4,1	1,0	60
50	4,0	8,8	7,7	3,7	0,8	50
60	4,7	8,9	7,3	3,3	0,6	40
70	5,4	9,0	7,0	2,9	0,4	30
80	6,0	9,0	6,6	2,6	0,3	20
90	6,6	9,0	6,1	2,2	0,1	10
100	7,1	8,9	5,7	2,0	0,0	0
	—	—	—	—	—	
	900	800	700	600	500	

TABLE XLVIII.

Equation of the Sun's Longitude, depending on Venus's Action.

Argument.

Num. III. ♀.

	0	100	200	300	400	
	—	— +	+	+	+	
N	″	″	″	″	″	N
0	0,0	1,0	2,5	7,7	7,3	1 00
10	0,2	0,9	3,1	8,0	6,9	90
20	0,4	0,7	3,7	8,3	6,3	80
30	0,6	0,4	4,3	8,4	5,7	70
40	0,8	0,2	4,8	8,5	5,0	60
50	0,9	0,2	5,4	8,5	4,3	50
60	1,0	0,6	5,9	8,5	3,5	40
70	1,1	1,0	6,4	8,3	2,6	30
80	1,1	1,5	6,9	8,1	1,8	20
90	1,1	2,0	7,3	7,8	0,9	10
100	1,0	2,5	7,7	7,3	0,0	0
	+	+ —	—	—	—	
	900	800	700	600	500	

TABLE XLIX.

To find the nonageſimal Degree of the Ecliptic and its Altitude for the Latitude of GREENWICH reduced to the Earth's Center, ſuppoſed 51°. 14′. 7″. and the Obliquity of the Ecliptic 23°. 28′.

ARGUM. Right Aſcenſion of the Meridian.

R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.
°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″
0	0. 26. 22. 40	44. 20. 25	30	1. 17. 47. 0	53. 48. 10	60	2. 8. 49. 10	60. 2. 50	90	3. 0. 0. 0	62. 13. 53	120	3. 21. 10. 50	60. 2. 50	150	4. 12. 13. 0	53. 48. 10
1	0. 27. 6. 40	44. 41. 40	31	1. 18. 29. 10	54. 4. 10	61	2. 9. 31. 20	60. 11. 10	91	3. 0. 42. 30	62. 13. 50	121	3. 21. 53. 10	59. 54. 0	151	4. 12. 55. 10	53. 32. 0
2	0. 27. 50. 40	45. 2. 50	32	1. 19. 11. 10	54. 19. 50	62	2. 10. 13. 30	60. 19. 30	92	3. 1. 24. 50	62. 13. 20	122	3. 22. 35. 20	59. 45. 0	152	4. 13. 37. 10	53. 15. 40
3	0. 28. 34. 30	45. 23. 50	33	1. 19. 53. 10	54. 35. 20	63	2. 10. 55. 40	60. 27. 30	93	3. 2. 7. 20	62. 12. 30	123	3. 23. 17. 30	59. 35. 40	153	4. 14. 19. 20	52. 59. 0
4	0. 29. 18. 10	45. 44. 40	34	1. 20. 35. 20	54. 50. 40	64	2. 11. 38. 0	60. 35. 0	94	3. 2. 49. 50	62. 11. 30	124	3. 23. 59. 40	59. 26. 0	154	4. 15. 1. 30	52. 42. 10
5	1. 0. 1. 50	46. 5. 30	35	1. 21. 17. 20	55. 5. 40	65	2. 12. 29. 10	60. 42. 30	95	3. 3. 32. 20	62. 10. 10	125	3. 24. 41. 40	59. 16. 10	155	4. 15. 43. 40	52. 25. 10
6	1. 0. 45. 10	46. 26. 10	36	1. 21. 59. 20	55. 20. 30	66	2. 13. 2. 30	60. 49. 40	96	3. 4. 14. 40	62. 8. 30	126	3. 25. 23. 50	59. 6. 0	156	4. 16. 26. 0	52. 8. 0
7	1. 1. 28. 40	46. 46. 30	37	1. 22. 41. 20	55. 35. 0	67	2. 13. 44. 50	60. 56. 30	97	3. 4. 57. 10	62. 6. 40	127	3. 26. 6. 0	58. 55. 40	157	4. 17. 8. 10	51. 50. 40
8	1. 2. 12. 0	47. 6. 50	38	1. 23. 23. 20	55. 49. 30	68	2. 14. 27. 10	61. 3. 0	98	3. 5. 39. 30	62. 4. 30	128	3. 26. 48. 10	58. 45. 0	158	4. 17. 50. 30	51. 33. 0
9	1. 2. 55. 10	47. 27. 0	39	1. 24. 5. 20	56. 3. 40	69	2. 15. 9. 30	61. 9. 20	99	3. 6. 22. 0	62. 2. 0	129	3. 27. 30. 10	58. 34. 10	159	4. 18. 32. 40	51. 15. 10
10	1. 3. 38. 30	47. 47. 0	40	1. 24. 47. 20	56. 17. 30	70	2. 15. 51. 40	61. 15. 10	100	3. 7. 4. 30	61. 59. 10	130	3. 28. 12. 20	58. 23. 0	160	4. 19. 15. 0	50. 57. 10
11	1. 4. 21. 10	48. 6. 50	41	1. 25. 29. 30	56. 31. 10	71	2. 16. 34. 0	61. 20. 50	101	3. 7. 46. 50	61. 56. 0	131	3. 28. 54. 20	58. 11. 40	161	4. 19. 57. 30	50. 39. 0
12	1. 5. 3. 50	48. 26. 30	42	1. 26. 11. 30	56. 44. 40	72	2. 17. 16. 30	61. 26. 20	102	3. 8. 29. 20	61. 52. 40	132	3. 29. 36. 30	58. 0. 0	162	4. 20. 40. 0	50. 20. 30
13	1. 5. 46. 50	48. 45. 50	43	1. 26. 53. 20	56. 57. 50	73	2. 17. 58. 50	61. 31. 30	103	3. 9. 11. 40	61. 49. 0	133	4. 0. 18. 30	57. 48. 0	163	4. 21. 22. 30	50. 2. 0
14	1. 6. 29. 40	49. 5. 10	44	1. 27. 35. 30	57. 10. 40	74	2. 18. 41. 10	61. 36. 10	104	3. 9. 54. 10	61. 45. 10	134	4. 1. 0. 30	57. 35. 40	164	4. 22. 5. 0	49. 43. 20
15	1. 7. 12. 20	49. 24. 20	45	1. 28. 17. 30	57. 23. 20	75	2. 19. 23. 30	61. 40. 50	105	3. 10. 36. 30	61. 40. 50	135	4. 1. 42. 30	57. 23. 20	165	4. 22. 47. 40	49. 24. 20
16	1. 7. 55. 0	49. 43. 20	46	1. 28. 59. 30	57. 35. 40	76	2. 20. 5. 50	61. 45. 10	106	3. 11. 18. 50	61. 36. 10	136	4. 2. 24. 30	57. 10. 40	166	4. 23. 30. 20	49. 5. 10
17	1. 8. 37. 30	50. 2. 0	47	1. 29. 41. 30	57. 48. 0	77	2. 20. 48. 20	61. 49. 0	107	3. 12. 1. 10	61. 31. 30	137	4. 3. 6. 40	56. 57. 50	167	4. 24. 13. 10	48. 45. 50
18	1. 9. 20. 0	50. 20. 30	48	2. 0. 23. 30	58. 0. 0	78	2. 21. 30. 40	61. 52. 40	108	3. 12. 43. 30	61. 26. 20	138	4. 3. 48. 30	56. 44. 40	168	4. 24. 56. 10	48. 26. 30
19	1. 10. 2. 30	50. 39. 0	49	2. 1. 5. 40	58. 11. 40	79	2. 22. 13. 10	61. 56. 0	109	3. 13. 26. 0	61. 20. 50	139	4. 4. 30. 30	56. 31. 10	169	4. 25. 38. 50	48. 6. 50
20	1. 10. 45. 0	50. 57. 10	50	2. 1. 47. 40	58. 23. 0	80	2. 22. 55. 30	61. 59. 10	110	3. 14. 8. 20	61. 15. 10	140	4. 5. 12. 40	56. 17. 30	170	4. 26. 21. 30	47. 47. 0
21	1. 11. 27. 20	51. 15. 10	51	2. 2. 29. 50	58. 34. 10	81	2. 23. 38. 0	62. 2. 0	111	3. 14. 50. 30	61. 9. 20	141	4. 5. 54. 40	56. 3. 40	171	4. 27. 4. 50	47. 27. 0
22	1. 12. 9. 30	51. 33. 0	52	2. 3. 11. 50	58. 45. 0	82	2. 24. 20. 30	62. 4. 30	112	3. 15. 32. 50	61. 3. 0	142	4. 6. 36. 40	55. 49. 30	172	4. 27. 48. 0	47. 6. 50
23	1. 12. 51. 50	51. 50. 40	53	2. 3. 54. 0	58. 55. 40	83	2. 25. 2. 50	62. 6. 40	113	3. 16. 15. 10	60. 56. 30	143	4. 7. 18. 40	55. 35. 0	173	4. 28. 31. 20	46. 46. 30
24	1. 13. 34. 0	52. 8. 0	54	2. 4. 36. 10	59. 6. 0	84	2. 25. 45. 20	62. 8. 30	114	3. 16. 57. 30	60. 49. 40	144	4. 8. 0. 40	55. 20. 30	174	4. 29. 14. 50	46. 26. 10
25	1. 14 16. 20	52. 25. 10	55	2. 5. 18. 20	59. 16. 10	85	2. 26. 27. 40	62. 10. 10	115	3. 17. 39. 50	60. 42. 30	145	4. 8. 42. 40	55. 5. 40	175	4. 29. 58. 10	46. 5. 30
26	1. 14. 58. 30	52. 42. 10	56	2. 6. 0. 20	59. 26. 0	86	2. 27. 10. 10	62. 11. 30	116	3. 18. 22. 0	60. 35. 0	146	4. 9. 24. 40	54. 50. 40	176	5. 0. 41. 50	45. 44. 40
27	1. 15. 40. 40	52. 59. 0	57	2. 6. 42. 30	59. 35. 40	87	2. 27. 52. 40	62. 12. 30	117	3. 19. 4. 20	60. 27. 30	147	4. 10. 6. 50	54. 35. 20	177	5. 1. 25. 30	45. 23. 50
28	1. 16. 22. 50	53. 15. 40	58	2. 7. 24. 40	59. 45. 0	88	2. 28. 35. 10	62. 13. 20	118	3. 19. 46. 30	60. 19. 30	148	4. 10. 48. 50	54. 19. 50	178	5. 2. 9. 20	45. 2. 50
29	1. 17. 4. 50	53. 32. 0	59	2. 8. 6. 50	59. 54. 0	89	2. 29. 17. 30	62. 13. 50	119	3. 20. 28. 40	60. 11. 10	149	4. 11. 30. 50	54. 4. 10	179	5. 2. 53. 20	44. 41. 40
30	1. 17. 47. 0	53. 48. 10	60	2. 8. 49. 10	60. 2. 50	90	3. 0. 0. 0	62. 13. 53	120	3. 21. 10. 50	60. 2. 50	150	4. 12. 13. 0	53. 48. 10	180	5. 3. 39. 20	44. 20. 25

TABLE XLIX. continued.

ARGUM. Right Ascension of the Meridian.

R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Alt. Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.	R.A. of Merid.	Nonag.	Alt. Nonag.
°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″	°	S ° ′ ″	° ′ ″
180	5. 3. 37. 20	44. 20. 25	210	5. 27. 32. 10	32. 52. 10	240	7. 0. 50. 20	21. 23. 0	270	9. 0. 0. 0	15. 17. 53	300	10. 29. 9. 40	21. 23. 0	330	0. 2. 27. 50	32. 52. 10
181	5. 4. 21. 40	43. 58. 50	211	5. 28. 26. 10	32. 28. 20	241	7. 2. 17. 20	21. 2. 40	271	9. 2. 22. 20	15. 18. 20	301	11. 0. 35. 0	21. 43. 30	331	0. 3. 21. 0	33. 16. 0
182	5. 5. 6. 10	43. 37. 10	212	5. 29. 20. 10	32. 4. 30	242	7. 3. 46. 30	20. 42. 40	272	9. 4. 44. 30	15. 19. 50	302	11. 1. 58. 40	22. 4. 30	332	0. 4. 13. 40	33. 40. 0
183	5. 5. 50. 30	43. 15. 30	213	6. 0. 15. 10	31. 40. 30	243	7. 5. 17. 50	20. 22. 50	273	9. 7. 6. 0	15. 22. 30	303	11. 3. 20. 40	22. 25. 50	333	0. 5. 5. 50	34. 3. 40
184	5. 6. 35. 20	42. 53. 40	214	6. 1. 10. 30	31. 16. 40	244	7. 6. 51. 0	20. 3. 40	274	9. 9. 26. 50	15. 25. 40	304	11. 4. 40. 50	22. 47. 20	334	0. 5. 57. 30	34. 27. 30
185	5. 7. 20. 10	42. 31. 40	215	6. 2. 6. 50	30. 52. 50	245	7. 8. 26. 30	19. 44. 40	275	9. 11. 46. 50	15. 30. 10	305	11. 5. 59. 30	23. 9. 0	335	0. 6. 48. 40	34. 51. 20
186	5. 8. 5. 20	42. 9. 30	216	6. 3. 3. 40	30. 29. 0	246	7. 10. 4. 0	19. 26. 10	276	9. 14. 5. 40	15. 35. 30	306	11. 7. 16. 30	23. 31. 0	336	0. 7. 39. 20	35. 15. 0
187	5. 8. 50. 40	41. 47. 20	217	6. 4. 1. 10	30. 5. 10	247	7. 11. 43. 50	19. 8. 0	277	9. 16. 23. 0	15. 41. 50	307	11. 8. 31. 50	23. 53. 10	337	0. 8. 29. 40	35. 38. 40
188	5. 9. 36. 10	41. 24. 50	218	6. 4. 59. 40	29. 41. 10	248	7. 13. 25. 40	18. 50. 30	278	9. 18. 38. 40	15. 49. 0	308	11. 9. 46. 0	24. 15. 30	338	0. 9. 19. 40	36. 2. 10
189	5. 10. 21. 50	41. 2. 30	219	6. 5. 58. 40	29. 17. 20	249	7. 15. 10. 0	18. 33. 20	279	9. 20. 52. 40	15. 57. 0	309	11. 10. 58. 40	24. 38. 0	339	0. 10. 9. 0	36. 25. 40
190	5. 11. 7. 50	40. 39. 50	220	6. 6. 58. 20	28. 53. 50	250	7. 16. 56. 50	18. 16. 40	280	9. 23. 5. 0	16. 6. 10	310	11. 12. 10. 0	25. 0. 40	340	0. 10. 58. 10	36. 49. 10
191	5. 11. 53. 50	40. 17. 20	221	6. 7. 59. 10	28. 30. 0	251	7. 18. 45. 50	18. 0. 50	281	9. 25. 15. 10	16. 15. 50	311	11. 13. 20. 10	25. 23. 30	341	0. 11. 47. 10	37. 12. 40
192	5. 12. 40. 20	39. 54. 30	222	6. 9. 0. 50	28. 6. 20	252	7. 20. 37. 20	17. 45. 20	282	9. 27. 23. 10	16. 26. 30	312	11. 14. 28. 50	25. 46. 20	342	0. 12. 35. 30	37. 36. 0
193	5. 13. 27. 0	39. 31. 40	223	6. 10. 3. 20	27. 42. 50	253	7. 22. 31. 20	17. 30. 20	283	9. 29. 28. 50	16. 37. 40	313	11. 15. 36. 40	26. 9. 30	343	0. 13. 23. 30	37. 59. 30
194	5. 14. 13. 50	39. 8. 40	224	6. 11. 6. 40	27. 19. 20	254	7. 24. 27. 30	17. 16. 20	284	10. 1. 32. 20	16. 49. 50	314	11. 16. 43. 20	26. 32. 40	344	0. 14. 11. 50	38. 22. 30
195	5. 15. 1. 10	38. 45. 40	225	6. 12. 11. 20	26. 56. 0	255	7. 26. 26. 30	17. 2. 40	285	10. 3. 33. 20	17. 2. 40	315	11. 17. 48. 40	26. 56. 0	345	0. 14. 58. 50	38. 45. 40
196	5. 15. 48. 30	38. 22. 30	226	6. 13. 16. 40	26. 32. 40	256	7. 28. 27. 40	16. 49. 50	286	10. 5. 32. 30	17. 16. 20	316	11. 18. 53. 20	27. 19. 20	346	0. 15. 46. 10	39. 8. 40
197	5. 16. 36. 30	37. 59. 30	227	6. 14. 23. 20	26. 9. 30	257	8. 0. 31. 10	16. 37. 40	287	10. 7. 28. 40	17. 30. 20	317	11. 19. 56. 40	27. 42. 50	347	0. 16. 33. 0	39. 31. 40
198	5. 17. 24. 30	37. 36. 0	228	6. 15. 31. 10	25. 46. 20	258	8. 2. 36. 50	16. 26. 30	288	10. 9. 22. 40	17. 45. 20	318	11. 20. 59. 10	28. 6. 20	348	0. 17. 19. 40	39. 54. 30
199	5. 18. 12. 50	37. 12. 40	229	6. 16. 39. 50	25. 23. 30	259	8. 4. 44. 50	16. 15. 50	289	10. 11. 14. 10	18. 0. 50	319	11. 22. 0. 50	28. 30. 0	349	0. 18. 6. 10	40. 17. 20
200	5. 19. 1. 50	36. 49. 10	230	6. 17. 50. 0	25. 0. 40	260	8. 6. 55. 0	16. 6. 10	290	10. 13. 3. 10	18. 16. 40	320	11. 23. 1. 40	28. 53. 50	350	0. 18. 52. 10	40. 39. 50
201	5. 19. 51. 0	36. 25. 40	231	6. 19. 1. 20	24. 38. 0	261	8. 9. 7. 20	15. 57. 0	291	10. 14. 50. 0	18. 33. 20	321	11. 24. 1. 20	29. 17. 20	351	0. 19. 38. 10	41. 2. 30
202	5. 20. 40. 20	36. 2. 10	232	6. 20. 14. 0	24. 15. 30	262	8. 11. 21. 20	15. 49. 0	292	10. 16. 34. 20	18. 50. 30	322	11. 25. 0. 20	29. 41. 10	352	0. 20. 23. 50	41. 24. 50
203	5. 21. 30. 20	35. 38. 40	233	6. 21. 28. 10	23. 53. 10	263	8. 13. 37. 0	15. 41. 50	293	10. 18. 16. 10	19. 8. 0	323	11. 25. 58. 50	30. 5. 10	353	0. 21. 9. 20	41. 47. 20
204	5. 22. 20. 40	35. 15. 0	234	6. 22. 43. 30	23. 31. 0	264	8. 15. 54. 20	15. 35. 30	294	10. 19. 56. 0	19. 26. 10	324	11. 26. 56. 20	30. 29. 0	354	0. 21. 54. 40	42. 9. 30
205	5. 23. 11. 20	34. 51. 20	235	6. 24. 0. 30	23. 9. 0	265	8. 18. 13. 10	15. 30. 10	295	10. 21. 33. 30	19. 44. 40	325	11. 27. 53. 10	30. 52. 50	355	0. 22. 39. 50	42. 31. 40
206	5. 24. 2. 30	34. 27. 30	236	6. 25. 19. 10	22. 47. 20	266	8. 20. 33. 10	15. 25. 40	296	10. 23. 9. 0	20. 3. 40	326	11. 28. 49. 30	31. 16. 40	356	0. 23. 24. 40	42. 53. 40
207	5. 24. 54. 10	34. 3. 40	237	6. 26. 39. 20	22. 25. 50	267	8. 22. 54. 0	15. 22. 30	297	10. 24. 42. 10	20. 22. 50	327	11. 29. 44. 50	31. 40. 30	357	0. 24. 9. 30	43. 15. 30
208	5. 25. 46. 20	33. 40. 0	238	6. 28. 1. 20	22. 4. 30	268	8. 25. 15. 30	15. 19. 50	298	10. 26. 13. 30	20. 42. 40	328	0. 0. 39. 50	32. 4. 30	358	0. 24. 53. 50	43. 37. 10
209	5. 26. 39. 0	33. 16. 0	239	6. 29. 25. 0	21. 43. 30	269	8. 27. 37. 40	15. 18. 20	299	10. 27. 42. 40	21. 2. 40	329	0. 1. 33. 50	32. 28. 20	359	0. 25. 38. 20	43. 58. 50
210	5. 27. 32. 10	32. 52. 10	240	7. 0. 50. 20	21. 23. 0	270	9. 0. 0. 0	15. 17. 53	300	10. 29. 9. 40	21. 23. 0	330	0. 2. 27. 50	32. 52. 10	360	0. 26. 22. 40	44. 20. 25

TABLE L.

Shewing how much the Nonagesimal Degree and its Altitude are altered by removing the Place One Degree to the North of Greenwich.

☌	Nonages.	Altitude.	
	+	—	
°	′	′	°
270	0,0	60,0	270
280	50,9	58,2	260
290	88,4	54,3	250
300	87,4	50,7	240
310	82,0	48,2	230
320	76,9	46,9	220
330	68,6	46,6	210
340	61,3	47,1	200
350	54,5	48,8	190
360	48,2	49,5	180
10	42,3	51,0	170
20	36,8	52,7	160
30	31,4	54,3	150
40	26,0	55,9	140
50	20,8	57,2	130
60	15,7	58,4	120
70	10,5	59,3	110
80	5,3	59,8	100
90	0,0	60,0	90
	—	—	
	Nonages.	Altitude.	☌

TABLE LI.

The Angle between the Ecliptic and parallel to the Equator, to the Obliquity of Ecliptic 23° 28′; with the Variation for 10″ Variation of the Obliquity.

Sun's Declinat	Angle of Ecliptic and parallel to Equator.	Diff.	Var. for 10″ Var. of Obl. of Ecliptic.	Sun's Declinat.	Angle of Ecliptic and and parallel to Equator.	Diff.	Var. for 10″ Var. of Obl. of Ecliptic.
D M	D M S	M S	S	D M	D M S	M S	S
0 0	23 28 0	0 18	10,0	16 40	16 45 38	20 18	14,4
0 30	23 27 42	0 55	10,0	17 0	16 25 20	21 12	14,7
1 0	23 26 47	1 30	10,0	17 20	16 4 8	22 10	15,0
1 30	23 25 17	2 7	10,0	17 40	15 41 58	23 12	15,4
2 0	23 23 10	2 44	10,1	18 0	15 18 46	24 18	15,8
2 30	23 20 26	3 21	10,1	18 20	14 54 28	25 31	16,3
3 0	23 17 5	3 57	10,1	18 40	14 28 57	26 50	16,8
3 30	23 13 8	4 36	10,1	19 0	14 2 7	21 5	17,3
4 0	23 8 32	5 14	10,1	19 15	13 41 2	21 58	17,8
4 30	23 3 18	5 52	10,2	19 30	13 19 4	22 57	18,3
5 0	22 57 26	6 31	10,2	19 45	12 56 7	23 59	18,9
5 30	22 50 55	7 12	10,3	20 0	12 32 8	16 38	19,5
6 0	22 43 43	7 52	10,3	20 10	12 15 30	17 11	20,0
6 30	22 35 51	8 34	10,4	20 20	11 58 19	17 47	20,4
7 0	22 27 17	9 16	10,5	20 30	11 40 32	18 26	21,0
7 30	22 18 1	9 59	10,6	20 40	11 22 6	19 7	21,5
8 0	22 8 2	10 45	10,6	20 50	11 2 59	19 53	22,2
8 30	21 57 17	11 31	10,8	21 0	10 43 6	10 14	22,9
9 0	21 45 46	12 18	10,9	21 5	10 32 52	10 28	23,3
9 30	21 33 28	13 7	11,0	21 10	10 22 24	10 41	23,7
10 0	21 20 21	13 58	11,1	21 15	10 11 43	10 57	24,1
10 30	21 6 23	14 51	11,2	21 20	10 0 46	11 11	24,6
11 0	20 51 32	15 46	11,4	21 25	9 49 35	11 27	25,0
11 30	20 35 46	16 44	11,5	21 30	9 38 8	11 45	25,5
12 0	20 19 2	17 44	11,7	21 35	9 26 23	12 4	26,0
12 30	20 1 18	18 48	11,9	21 40	9 14 19	12 22	26,6
13 0	19 42 30	19 53	12,1	21 45	9 1 57	12 44	27,3
13 30	19 22 37	21 5	12,3	21 50	8 49 13	13 6	27,9
14 0	19 1 32	22 20	12,6	21 55	8 36 7	13 30	28,6
14 30	18 39 12	23 40	12,8	22 0	8 22 37	13 57	29,4
15 0	18 15 32	16 34	13,1	22 5	8 8 40	14 25	30,3
15 20	17 58 58	17 14	13,3	22 10	7 54 15	14 57	31,2
14 40	17 41 44	17 56	13,5	22 15	7 39 18	15 31	32,2
16 0	17 23 48	18 41	13,8	22 20	7 23 47	16 9	33,4
16 20	17 5 7	19 29	14,1	22 25	7 7 38	16 52	34,7
16 40	16 45 38		14,4	22 30	6 50 46		36,1

TABLE LII.

Time taken by Light to move over Parts of the Orbis Magnus.

Parts of Orbis Magnus.	Time.	Parts of Orbis Magnus.	Time.	Parts of Orbis Magnus.	Time.
	″		′ ″		′ ″
,001	0,5	,31	2 31,0	,70	5 40,9
,002	1,0	,32	2 35,8	,71	5 45,8
,003	1,5	,33	2 40,7	,72	5 50,6
,004	1,9	,34	2 45,6	,73	5 55,5
,005	2,4	,35	2 50,4	,74	6 0,4
,006	2,9	,36	2 55,3	,75	6 5,2
,007	3,4	,37	3 0,2	,76	6 10,1
,008	3,9	,38	3 5,1	,77	6 15,0
,009	4,4	,39	3 9,9	,78	6 19,9
,01	4,9	,40	3 14,8	,79	6 24,7
,02	9,7	,41	3 19,7	,80	6 29,6
,03	14,6	,42	3 24,5	,81	6 34,5
,04	19,5	,43	3 29,4	,82	6 39,3
,05	24,4	,44	3 34,3	,83	6 44,2
,06	29,2	,45	3 39,1	,84	6 49,1
,07	34,1	,46	3 44,0	,85	6 53,9
,08	39,0	,47	3 48,9	,86	6 58,8
,09	43,8	,48	3 53,8	,87	7 3,7
,1	48,7	,49	3 58,6	,88	7 8,6
,11	53,6	,50	4 3,5	,89	7 13,4
,12	58,4	,51	4 8,4	,90	7 18,3
,13	1 3,3	,52	4 13,2	,91	7 23,2
,14	1 8,2	,53	4 18,1	,92	7 28,0
,15	1 13,0	,54	4 23,0	,93	7 32,9
,16	1 17,9	,55	4 27,8	,94	7 37,8
,17	1 22,8	,56	4 32,7	,95	7 42,6
,18	1 27,7	,57	4 37,6	,96	7 47,5
,19	1 32,5	,58	4 42,5	,97	7 52,4
,20	1 37,4	,59	4 47,3	,98	7 57,3
,21	1 42,3	,60	4 52,2	,99	8 2,1
,22	1 47,1	,61	4 57,1	1,00	8 7,0
,23	1 52,0	,62	5 1,9	2	16 14
,24	1 56,9	,63	5 6,8	3	24 21
,25	2 1,8	,64	5 11,7	4	32 28
,26	2 6,6	,65	5 16,5	5	40 35
,27	2 11,5	,66	5 21,4	6	48 42
,28	2 16,4	,67	5 26,3	7	56 49
,29	2 21,3	,68	5 31,2	8	64 56
,30	2 26,1	,69	5 36,0	9	73 3
				10	81 10

TABLE LIII.

The Angle of Position of any Point of the Ecliptic.

According to the Obliquity of the Ecliptic 23° 28′, with the Variation for the Variation of the Obliquity by One Minute.

ARGUM. Longitude of the Point of the Ecliptic.

S.	0 +	6 −		1 +	7 −		2 +	8 −		S.
	Angle of Position.	Diff.	Var.	Angle of Position.	Diff.	Var.	Angle of Position.	Diff.	Var.	
°	° ′ ″	′ ″	″	° ′ ″	′ ″	″	° ′ ″	′ ″	″	°
0	23. 28. 0	0. 11,5	60,0	20. 36. 15,2	11. 35,8	54,1	12. 14. 48,0	21. 40,8	34,0	30
1	23. 27. 48,5	0. 34,4	60,0	20. 24. 39,4	11. 58,2	53,7	11. 53. 7,2	21. 56,9	33,1	29
2	23. 27. 14,1	0. 57,4	59,9	20. 12. 41,2	12. 20,4	53,3	11. 31. 10,3	22. 12,7	32,1	28
3	23. 26. 16,7	1. 20,3	59,9	20. 0. 20,8	12. 42,7	52,8	11. 8. 57,6	22. 28,0	31,1	27
4	23. 24. 56,4	1. 43,3	59,8	19. 47. 38,1	13. 4,7	52,3	10. 46. 29,6	22. 43,0	30,1	26
5	23. 23. 13,1	2. 6,2	59,8	19. 34. 33,4	13. 26,8	51,8	10. 23. 46,6	22. 57,4	29,1	25
6	23. 21. 6,9	2. 29,2	59,7	19. 21. 6,6	13. 48,6	51,3	10. 0. 49,2	23. 11,5	28,1	24
7	23. 18. 37,7	2. 52,1	59,6	19. 7. 18,0	14. 10,6	50,8	9. 37. 37,7	23. 25,1	27,0	23
8	23. 15. 45,6	3. 15,0	59,5	18. 53. 7,4	14. 32,2	50,3	9. 14. 12,6	23. 38,2	26,0	22
9	23. 12. 30,6	3. 38,0	59,4	18. 38. 35,2	14. 53,8	49,7	8. 50. 34,4	23. 50,7	24,9	21
10	23. 8. 52,6	4. 0,9	59,3	18. 23. 41,4	15. 15,2	49,2	8. 26. 43,7	24. 2,9	23,8	20
11	23. 4. 51,7	4. 23,8	59,2	18. 8. 26,2	15. 36,6	48,6	8. 2. 40,8	24. 14,5	22,7	19
12	23. 0. 27,9	4. 46,8	59,1	17. 52. 49,6	15. 57,7	48,0	7. 38. 26,3	24. 25,5	21,6	18
13	22. 55. 41,1	5. 9,7	58,9	17. 36. 51,9	16. 18,7	47,3	7. 14. 0,8	24. 36,0	20,5	17
14	22. 50. 31,4	5. 32,5	58,8	17. 20. 33,2	16. 39,6	46,7	6. 49. 24,8	24. 46,0	19,4	16
15	22. 44. 58,9	5. 55,5	58,6	17. 3. 53,6	17. 0,2	46,1	6. 24. 38,8	24. 55,3	18,2	15
16	22. 39. 3,4	6. 18,3	58,4	16. 46. 53,4	17. 20,7	45,4	5. 59. 43,5	25. 4,2	17,1	14
17	22. 32. 45,1	6. 41,2	58,1	16. 29. 32,7	17. 41,0	44,7	5. 34. 39,3	25. 12,4	15,9	13
18	22. 26. 3,9	7. 4,0	57,9	16. 11. 51,7	18. 1,0	43,9	5. 9. 26,9	25. 20,1	14,7	12
19	22. 18. 59,9	7. 26,9	57,6	15. 53. 50,7	18. 20,9	43,2	4. 44. 6,8	25. 27,0	13,5	11
20	22. 11. 33,0	7. 49,6	57,3	15. 35. 29,8	18,40,5	42,5	4. 18. 39,8	25. 33,5	12,3	10
21	22. 3. 43,4	8. 12,5	57,1	15. 16. 49,3	18. 59,8	41,7	3. 53. 6,3	25. 39,3	11,1	9
22	21. 55. 30,9	8. 35,1	56,8	14. 57. 49,5	19. 18,9	40,9	3. 27. 27,0	25. 44,5	9,9	8
23	21. 46. 55,8	8. 58,0	56,6	14. 38. 30,6	19. 37,7	40,1	3. 1. 42,5	25. 49,1	8,7	7
24	21. 37. 57,8	9. 20,6	56,3	14. 18. 52,9	19. 56,3	39,3	2. 35. 53,4	25. 52,9	7,4	6
25	21. 28. 37,2	9. 43,2	56,0	13. 58. 56,6	20. 14,6	38,5	2. 10. 0,5	25. 56,2	6,2	5
26	21. 18. 54,0	10. 5,9	55,6	13. 38. 42,0	20. 32,4	37,6	1. 44. 4,3	25. 58,8	5,0	4
27	21. 8. 48,1	10. 28,5	55,2	13. 18. 9,6	20. 50,1	36,7	1. 18. 5,5	26. 0,7	3,7	3
28	20. 58. 19,6	10. 50,9	54,9	12. 57. 19,5	21. 7,3	35,8	0. 52. 4,8	26. 2,1	2,5	2
29	20. 47. 28,7	11. 13,5	54,5	12. 36. 12,2	21. 24,2	34,9	0. 26. 2,7	26. 2,7	1,2	1
30	20. 36. 15,2		54,1	12. 14. 48,0		34,0	0. 0. 0		0,0	0
S.	5 −	11 +		4 −	10 +		3 −	9 +		S.

[M] TABLE [45]

TABLE LIV.

The Angle of Position of any Point of the Ecliptic.

According to the Obliquity of the Ecliptic 23° 28′, with the Variation for the Variation of the Obliquity by One Minute.

ARGUM. Right Aſcenſion of the Point of the Ecliptic.

S.	0 +	6 —		1 +	7 —		2 +	8 —		S.
	Angle of Poſition.	Diff.	Var.	Angle of Poſition.	Diff.	Var.	Angle of Poſition.	Diff.	Var.	
°	° ′ ″	′ ″	″	° ′ ″	′ ″	″	° ′ ″	′ ″	″	°
0	23. 28. 0			20. 10. 24,7			11. 29. 5,2			
		0. 13,7	60,0		12. 54,6	50,8		21. 12,4	28,0	30
1	23. 27. 46,3		60,0	19. 57. 30,1		50,2	11. 7. 52,8		27,1	29
		0. 40,9			13. 16,3			21. 23,2		
2	23. 27. 5,4		59,9	19. 44. 13,8		49,5	10. 46. 29,6		26,2	28
		1. 8,1			13. 37,4			21. 33,6		
3	23. 25. 57,3		59,8	19. 30. 36,4		48,9	10. 24. 56,0		25,3	27
		1. 35,4			13. 59,2			21. 43,7		
4	23. 24. 21,9		59,8	19. 16. 37,2		48,4	10. 3. 12,3		24,4	26
		2. 2,6			14. 19,6			21. 53,4		
5	23. 22. 19,3		59,7	19. 2. 17,6		47,6	9. 41. 18,9		23,5	25
		2. 29,6			14. 40,0			22. 2,6		
6	23. 19. 49,7		59,6	18. 47. 37,6		47,0	9. 19. 16,3		22,6	24
		2. 56,7			15. 0,1			22. 11,6		
7	23. 16. 53,0		59,4	18. 32. 37,5		46,3	8. 57. 4,7		21,7	23
		3. 23,6			15. 19,8			22. 20,1		
8	23. 13. 29,4		59,2	18. 17. 17,7		45,6	8. 34. 44,6		20,8	22
		3. 50,6			15. 39,1			22. 28,2		
9	23. 9. 38,8		59,0	18. 1. 38,6		44,9	8. 12. 16,4		19,9	21
		4. 17,3			15. 58,2			22. 36,1		
10	23. 5. 21,5		58,8	17. 45. 40,4		44,3	7. 49. 40,3		19,0	20
		4. 43,9			16. 16,9			22. 43,4		
11	23. 0. 37,6		58,6	17. 29. 23,5		43,6	7. 26. 56,9		18,1	19
		5. 10,4			16. 35,2			22. 50,4		
12	22. 55. 27,2		58,4	17. 12. 48,3		42,9	7. 4. 6,5		17,1	18
		5. 36,8			16. 53,1			22. 57,2		
13	22. 49. 50,4		58,1	16. 55. 55,2		42,1	6. 41. 9,3		16,2	17
		6. 2,9			17. 10,8			23. 3,4		
14	22. 43. 47,5		57,9	16. 38. 44,4		41,4	6. 18. 5,9		15,2	16
		6. 29,0			17. 27,9			23. 9,3		
15	22. 37. 18,5		57,6	16. 21. 16,5		40,5	5. 54. 56,6		14,2	15
		6. 54,9			17. 44,9			23. 14,8		
16	22. 30. 23,6		57,3	16. 3. 31,6		39,6	5. 31. 41,8		13,3	14
		7. 20,5			18. 1,2			23. 20,0		
17	22. 23. 3,1		57,0	15. 45. 30,4		38,8	5. 8. 21,8		12,3	13
		7. 45,8			18. 17,4			23. 24,8		
18	22. 15. 17,3		56,7	15. 27. 13,0		38,1	4. 44. 57,0		11,4	12
		8. 11,5			18. 33,2			23. 29,3		
19	22. 7. 5,8		56,2	15. 8. 39,8		37,3	4. 21. 27,7		10,4	11
		8. 36,3			18. 48,4			23. 33,3		
20	21. 58. 29,5		55,8	14. 49. 51,4		36,4	3. 57. 54,4		9,5	10
		9. 1,0			19. 3,5			23. 36,9		
21	21. 49. 28,5		55,3	14. 30. 47,9		35,6	3. 34. 17,5		8,5	9
		9. 25,7			19. 18,0			23. 40,3		
22	21. 40. 2,8		54,8	14. 11. 29,9		34,8	3. 10. 37,2		7,6	8
		9. 50,0			19. 32,3			23. 43,2		
23	21. 30. 12,8		54,4	13. 51. 57,6		34,1	2. 46. 54,0		6,6	7
		10. 14,0			19. 46,2			23. 45,8		
24	21. 19. 58,8		53,9	13. 32. 11,4		33,2	2. 23. 8,2		5,7	6
		10. 37,8			19. 59,5			23. 48,0		
25	21. 9. 21,0		53,4	13. 12. 11,9		32,3	1. 59. 20,2		4,7	5
		11. 1,4			20. 12,7			23. 49,9		
26	20. 58. 19,6		52,9	12. 51. 59,2		31,5	1. 35. 30,3		3,8	4
		11. 24,6			20. 25,4			23. 51,2		
27	20. 46. 55,0		52,3	12. 31. 33,8		30,6	1. 11. 39,1		2,9	3
		11. 47,5			20. 37,7			23. 52,5		
28	20. 35. 7,5		51,7	12. 10. 56,1		29,8	0. 47. 46,6		1,9	2
		12. 10,2			20. 49,7			23. 53,1		
29	20. 22. 57,3		51,2	11. 50. 6,4		28,9	0. 23. 53,5		1,0	1
		12. 32,6			21. 1,2			23. 53,5		
30	20. 10. 24,7		50,8	11. 29. 5,2		28,0	0. 0. 0		0,0	0
S.	5 —	11 +		4 —	10 +		3 —	9 +		S.

TABLE LV.

Augmentation of the Angle of Position of a Point in the Ecliptic, for the Latitude of the Zodiacal Stars.

Ecliptic Angle of Position.	Latitude of Star.												
	0°. 30′	1°. 0′	1°. 30′	2°. 0′	2°. 30′	3°. 0′	3°. 30′	4°. 0′	4°. 30′	5°. 0′	5°. 30′	6°. 0′	6°. 30′
°	″	″	″	″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
0	0	0	0	0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0. 0
1	0,1	0,5	1,2	2,2	0. 3,4	0. 4,9	0. 6,6	0. 8,8	0. 11,1	0. 13,7	0. 16,6	0. 19,8	0. 23,3
2	0,2	1,1	2,4	4,4	0. 6,8	0. 9,9	0. 13,4	0. 17,6	0. 22,2	0. 27,5	0. 33,3	0. 39,7	0. 46,6
3	0,4	1,6	3,7	6,6	0. 10,3	0. 14,8	0. 20,2	0. 26,4	0. 33,4	0. 41,3	0. 50,0	0. 59,6	1. 9,9
4	0,5	2,2	4,9	8,8	0. 13,7	0. 19,8	0. 26,9	0. 35,2	0. 44,6	0. 55,1	1. 6,7	1. 19,5	1. 33,3
5	0,7	2,8	6,2	11,0	0. 17,2	0. 24,7	0. 33,8	0. 44,0	0. 55,8	1. 9,0	1. 23,4	1. 39,4	1. 56,7
6	0,8	3,3	7,4	13,2	0. 20,6	0. 29,7	0. 40,5	0. 52,9	1. 7,0	1. 22,8	1. 40,2	1. 59,4	2. 20,2
7	1,0	3,8	8,6	15,4	0. 24,1	0. 34,7	0. 47,3	1. 1,8	1. 18,3	1. 36,7	1. 57,1	2. 19,5	2. 43,8
8	1,1	4,4	9,9	17,6	0. 27,6	0. 39,7	0. 54,2	1. 10,7	1. 29,6	1. 50,7	2. 14,0	2. 39,7	3. 7,5
9	1,2	5,0	11,2	19,8	0. 31,0	0. 44,8	1. 1,0	1. 19,8	1. 41,0	2. 4,8	2. 31,1	3. 0,0	3. 31,3
10	1,4	5,5	12,4	22,1	0. 34,6	0. 49,9	1. 7,9	1. 28,8	1. 52,4	2. 19,0	2. 48,2	3. 20,3	3. 55,3
11	1,5	6,1	13,7	24,4	0. 38,2	0. 55,0	1. 14,9	1. 37,9	2. 3,9	2. 33,1	3. 5,4	3. 40,9	4. 19,4
12	1,7	6,7	15,0	26,7	0. 41,7	1. 0,1	1. 21,9	1. 47,0	2. 15,5	2. 47,4	3. 22,8	4. 1,5	4. 43,6
13	1,8	7,2	16,3	29,0	0. 45,3	1. 5,3	1. 29,0	1. 56,3	2. 27,2	3. 1,9	3. 40,2	4. 22,3	5. 8,1
14	1,9	7,8	17,6	31,4	0. 48,9	1. 10,5	1. 36,1	2. 5,5	2. 39,0	3. 16,4	3. 57,8	4. 43,3	5. 32,8
15	2,1	8,4	18,9	33,7	0. 52,5	1. 15,8	1. 43,2	2. 14,9	2. 50,9	3. 31,1	4. 15,6	5. 4,5	5. 57,6
16	2,2	9,0	20,3	36,1	0. 56,3	1. 21,1	1. 50,5	2. 24,4	3. 2,9	3. 45,9	4. 33,6	5. 25,7	6. 22,7
17	2,4	9,6	21,6	38,4	1. 0,0	1. 26,5	1. 57,8	2. 34,0	3. 15,0	4. 0,9	4. 51,7	5. 47,4	6. 48,1
18	2,5	10,2	22,9	40,9	1. 3,8	1. 32,0	2. 5,3	2. 43,6	3. 27,2	4. 16,0	5. 10,0	6. 9,2	7. 13,9
19	2,7	10,8	24,3	43,3	1. 7,6	1. 37,4	2. 12,7	2. 53,4	3. 39,6	4. 31,3	5. 28,5	6. 31,3	7. 39,6
20	2,9	11,4	25,7	45,8	1. 11,5	1. 43,0	2. 20,3	3. 3,3	3. 52,2	4. 46,8	5. 47,3	6. 53,6	8. 5,9
21	3,0	12,0	27,1	48,2	1. 15,4	1. 48,7	2. 27,9	3. 13,3	4. 4,9	5. 2,5	6. 6,3	7. 16,3	8. 32,5
22	3,1	12,7	28,5	50,7	1. 19,3	1. 54,4	2. 35,7	3. 23,5	4. 17,7	5. 18,4	6. 25,5	7. 39,2	8. 59,4
23	3,3	13,3	30,0	53,3	1. 23,4	2. 0,0	2. 43,6	3. 33,7	4. 30,8	5. 34,5	6. 45,1	8. 2,5	9. 26,9
23. 28	3,4	13,7	30,7	54,5	1. 25,3	2. 2,9	2. 47,4	3. 38,7	4. 36,9	5. 42,1	6. 54,1	8. 13,4	9. 39,6

TABLE LVI.

To reduce the outermoſt Diviſions on the Quadrant to Degrees, Minutes, and Seconds.

Value of the Grand Diviſions.						Value of the Subdiviſions with the Vernier ſubjoined.																	
Div.	° ′ ″	Div.	° ′ ″	Div.	° ′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″	Sds.V.	′ ″
1	0. 56. 15	33	30. 56. 15	65	60. 56. 15	0. 0	0. 0,0	2. 0	7. 1,9	4. 0	14. 3,8	6. 0	21. 5,6	8. 0	28. 7,5	10. 0	35. 9,4	12. 0	42. 11,3	14. 0	49. 13,1		
2	1. 52. 30	34	31. 52. 30	66	61. 52. 30	0. 1	0. 13,2	2. 1	7. 15,1	4. 1	14. 16,9	6. 1	21. 18,8	8. 1	28. 20,7	10. 1	35. 22,6	12. 1	42. 24,4	14. 1	49. 26,3		
3	2. 48. 45	35	32. 48. 45	67	62. 48. 45	0. 2	0. 26,4	2. 2	7. 28,2	4. 2	14. 30,1	6. 2	21. 32,0	S. 2	28. 33,9	10. 2	35. 35,7	12. 2	42. 37,6	14. 2	49. 39,5		
4	3. 45. 0	36	33. 45. 0	68	63. 45. 0	0. 3	0. 39,6	2. 3	7. 41,4	4. 3	14. 43,3	6. 3	21. 45,2	8. 3	28. 47,1	10. 3	35. 48,9	12. 3	42. 50,8	14. 3	49. 52,7		
5	4. 41. 15	37	34. 41. 15	69	64. 41. 15	0. 4	0. 52,7	2. 4	7. 54,6	4. 4	14. 56,5	6. 4	21. 58,4	8. 4	29. 0,2	10. 4	36. 2,1	12. 4	43. 4,0	14. 4	50. 5,9		
6	5. 37. 30	38	35. 37. 30	70	65. 37. 30	0. 5	1. 5,9	2. 5	8. 7,8	4. 5	15. 9,7	6. 5	22. 11,5	8. 5	29. 13,4	10. 5	36. 15,3	12. 5	43. 17,2	14. 5	50. 19,0		
7	6. 33. 45	39	36. 33. 45	71	66. 33. 45	0. 6	1. 19,1	2. 6	8. 21,0	4. 6	15. 22,9	6. 6	22. 24,7	8. 6	29. 26,6	10. 6	36. 28,5	12. 6	43. 30,4	14. 6	50. 32,2		
8	7. 30. 0	40	37. 30. 0	72	67. 30. 0	0. 7	1. 32,3	2. 7	8. 34,2	4. 7	15. 36,0	6. 7	22. 37,9	8. 7	29. 39,8	10. 7	36. 41,7	12. 7	43. 43,5	14. 7	50. 45,4		
9	8. 26. 15	41	38. 26. 15	73	68. 26. 15	0. 8	1. 45,5	2. 8	8. 47. 3	4. 8	15. 49,2	6. 8	22. 51,1	8. 8	29. 53,0	10. 8	36. 54,8	12. 8	43. 56,7	14. 8	50. 58,6		
10	9. 22. 30	42	39. 22. 30	74	69. 22. 30	0. 9	1. 58,7	2. 9	9. 0,5	4. 9	16. 2,4	6. 9	23. 4,3	8. 9	30. 6,2	10. 9	37. 8,0	12. 9	44. 9,9	14. 9	51. 11,8		
11	10. 18. 45	43	40. 18. 45	75	70. 18. 45	0. 10	2. 11,8	2. 10	9. 13,7	4. 10	16. 15,6	6. 10	23. 17,5	8. 10	30. 19,3	10. 10	37. 21,2	12. 10	44. 23,1	14. 10	51. 25,0		
12	11. 15. 0	44	41. 15. 0	76	71. 15. 0	0. 11	2. 25,0	2. 11	9. 26,9	4. 11	16. 28,8	6. 11	23. 30,6	8. 11	30. 32,5	10. 11	37. 34,4	12. 11	44. 36,3	14. 11	51. 38,1		
13	12. 11. 15	45	42. 11. 15	77	72. 11. 15	0. 12	2. 38,2	2. 12	9. 40,1	4. 12	6. 42,0	6. 12	23. 43,8	8. 12	30. 45,7	10. 12	37. 47,6	12. 12	44. 49,5	14. 12	51. 51,3		
14	13. 7. 30	46	43. 7. 30	78	73. 7. 30	0. 13	2. 51,4	2. 13	9. 53,3	4. 13	16. 55,1	6. 13	23. 57,0	8. 13	30. 58,9	10. 13	38. 0,8	12. 13	45. 2,6	14. 13	52. 4,5		
15	14. 3. 45	47	44. 3. 45	79	74. 3. 45	0. 14	3. 4,6	2. 14	10. 6,4	4. 14	17. 8,3	6. 14	24. 10,2	8. 14	31. 12,1	10. 14	38. 13,9	12. 14	45. 15,8	14. 14	52. 17,7		
16	15. 0. 0	48	45. 0. 0	80	75. 0. 0	0. 15	3. 17,8	2. 15	10. 19,6	4. 15	17. 21,5	6. 15	24. 23,4	8. 15	31. 25,3	10. 15	38. 27,1	12. 15	45. 29,0	14. 15	52. 30,9		
17	15. 56. 15	49	45. 56. 15	81	75. 56. 15	1. 0	3. 30,9	3. 0	10. 32,8	5. 0	17. 34,7	7. 0	24. 36,6	9. 0	31. 38,4	11. 0	38. 40,3	13. 0	45. 42,2	15. 0	52. 44,1		
18	16. 52. 30	50	46. 52. 30	82	76. 52. 30	1. 1	3. 44,1	3. 1	10. 46,0	5. 1	17. 47,9	7. 1	24. 49,7	9. 1	31. 51,6	11. 1	38. 53,5	13. 1	45. 55,4	15. 1	52. 57,2		
19	17. 48. 45	51	47. 48. 45	83	77. 48. 45	1. 2	3. 57,3	3. 2	10. 59,2	5. 2	18. 1,1	7. 2	25. 2,9	9. 2	32. 4,8	11. 2	39. 6,7	13. 2	46. 8,6	15. 2	53. 10,4		
20	18. 45. 0	52	48. 45. 0	84	78. 45. 0	1. 3	4. 10,5	3. 3	11. 12,4	5. 3	18. 14,2	7. 3	25. 16,1	9. 3	32. 18,0	11. 3	39. 19,9	13. 3	46. 21,7	15. 3	53. 23,6		
21	19. 41. 15	53	49. 41. 15	85	79. 41. 15	1. 4	4. 23,7	3. 4	11. 25,5	5. 4	18. 27,4	7. 4	25. 29,3	9. 4	32. 31,2	11. 4	39. 33,0	13. 4	46. 34,9	15. 4	53. 36,8		
22	20. 37. 30	54	50. 37. 30	86	80. 37. 30	1. 5	4. 36,9	3. 5	11. 38,7	5. 5	18. 40,6	7. 5	25. 42,5	9. 5	32. 44,4	11. 5	39. 46,2	13. 5	46. 48,1	15. 5	53. 50,0		
23	21. 33. 45	55	51. 33. 45	87	81. 33. 45	1. 6	4. 50,0	3. 6	11. 51,9	5. 6	18. 53,8	7. 6	25. 55,7	9. 6	32. 57,5	11. 6	39. 59,4	13. 6	47. 1,3	15. 6	54. 3,2		
24	22. 30. 0	56	52. 30. 0	88	82. 30. 0	1. 7	5. 3,2	3. 7	12. 5,1	5. 7	19. 7,0	7. 7	26. 8,8	9. 7	33. 10,7	11. 7	40. 12,6	13. 7	47. 14,5	15. 7	54. 16,3		
25	23. 26. 15	57	53. 26. 15	89	83. 26. 15	1. 8	5. 16,4	3. 8	12. 18,3	5. 8	19. 20,2	7. 8	26. 22,0	9. 8	33. 23,9	11. 8	40. 25,8	13. 8	47. 27,7	15. 8	54. 29,5		
26	24. 22. 30	58	54. 22. 30	90	84. 22. 30	1. 9	5. 29,6	3. 9	12. 31,5	5. 9	19. 33,3	7. 9	26. 35,2	9. 9	33. 37,1	11. 9	40. 39,0	13. 9	47. 40,8	15. 9	54. 42,7		
27	25. 18. 45	59	55. 18. 45	91	85. 18. 45	1. 10	5. 42,8	3. 10	12. 44,6	5. 10	19. 46,5	7. 10	26. 48,4	9. 10	33. 50,3	11. 10	40. 52,1	13. 10	47. 54,0	15. 10	54. 55,9		
28	26. 15. 0	60	56. 15. 0	92	86. 15. 0	1. 11	5. 56,0	3. 11	12. 57,8	5. 11	19. 59,7	7. 11	27. 1,6	9. 11	34. 3,5	11. 11	41. 5,3	13. 11	48. 7,2	15. 11	55. 9,1		
29	27. 11. 15	61	57. 11. 15	93	87. 11. 15	1. 12	6. 9,1	3. 12	13. 11,0	5. 12	20. 12,9	7 12	27. 14,8	9. 12	34. 16,6	11. 12	41. 18,5	13. 12	48. 20,4	15. 12	55. 22,3		
30	28. 7. 30	62	58. 7. 30	94	88. 7. 30	1. 13	6. 22,3	3. 13	13. 24,2	5. 13	20. 26,1	7. 13	27. 27,9	9. 13	34. 29,8	11. 13	41. 31,7	13. 13	48. 33,6	15. 13	55. 35,4		
31	29. 3. 45	63	59. 3. 45	95	89. 3. 45	1. 14	6. 35,5	3. 14	13. 37,4	5. 14	20. 39,3	7. 14	27. 41,1	9. 14	34. 43,0	11. 14	41. 44,9	13. 14	48. 46,8	15. 14	55. 48,6		
32	30. 0. 0	64	60. 0. 0	96	90. 0. 0	1. 15	6. 48,7	3. 15	13. 50,6	5. 15	20. 52,4	7. 15	27. 54,3	9. 15	34. 56,2	11. 15	41. 58,1	13. 15	48. 59,9	15. 15	56. 1,	8	

TABLE LVII. or TABLE XXII. enlarged.

A TABLE of mean Refractions to every Ten Minutes of Zenith Distances.

App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.
o ′	″	″	o ′	″	″	o ′	″	″	o ′	″	″	o ′	″	″
0 0	0, 00		9 00	9, 00		18 00	18, 50		27 00	29, 00		36 00	41, 40	
		, 17			, 17			, 18			, 22			; 25
0 10	0, 17		9 10	9, 17		18 10	18, 68		27 10	29, 22		36 10	41, 65	
		, 16			, 16			, 19			, 21			; 25
0 20	0, 33		9 20	9, 33		18 20	18, 87		27 20	29, 43		36 20	41, 90	
		, 17			, 17			, 18			, 22			; 25
0 30	0, 50		9 30	9, 50		18 30	19, 05		27 30	29, 65		36 30	42, 15	
		, 17			, 17			, 18			, 22			, 25
0 40	0, 67		9 40	9, 67		18 40	19, 23		27 40	29, 87		36 40	42, 40	
		, 16			, 16			, 19			, 21			, 25
0 50	0, 83		9 50	9, 83		18 50	19, 42		27 50	30, 08		36 50	42, 65	
		, 17			, 17			, 18			, 22			, 25
1 0	1, 00		10 00	10, 00		19 00	19, 60		28 00	30, 30		37 00	42, 90	
		, 17			, 18			, 18			, 22			, 27
1 10	1, 17		10 10	10, 18		19 10	19, 78		28 10	30, 52		37 10	43, 17	
		, 16			, 19			, 19			, 21			, 26
1 20	1, 33		10 20	10, 37		19 20	19, 97		28 20	30, 73		37 20	43, 43	
		, 17			, 18			, 18			, 22			, 27
1 30	1, 50		10 30	10, 55		19 30	20, 15		28 30	30, 95		37 30	43, 70	
		, 17			, 18			, 18			, 22			, 27
1 40	1, 67		10 40	10, 73		19 40	20, 33		28 40	31, 17		37 40	43, 97	
		, 16			, 19			, 19			, 21			, 26
1 50	1, 83		10 50	10, 92		19 50	20, 52		28 50	31, 38		37 50	44, 23	
		, 17			, 18			, 18			, 22			, 27
2 0	2, 00		11 00	11, 10		20 00	20, 70		29 00	31, 60		38 00	44, 50	
		, 17			, 17			, 20			, 22			, 27
2 10	2, 17		11 10	11, 27		20 10	20, 90		29 10	31, 82		38 10	44, 77	
		, 16			, 16			, 20			, 21			, 26
2 20	2, 33		11 20	11, 43		20 20	21, 10		29 20	32, 03		38 20	45, 03	
		, 17			, 17			, 20			, 22			, 27
2 30	2, 50		11 30	11, 60		20 30	21, 30		29 30	32, 25		38 30	45, 30	
		, 17			, 17			, 20			, 22			, 27
2 40	2, 67		11 40	11, 77		20 40	21, 50		29 40	32, 47		38 40	45, 57	
		, 16			, 16			, 20			, 21			, 26
2 50	2, 83		11 50	11, 93		20 50	21, 70		29 50	32, 68		38 50	45, 83	
		, 17			, 17			, 20			, 22			, 27
3 0	3, 00		12 00	12, 10		21 00	21, 90		30 00	32, 90		39 00	46, 10	
		, 17			, 17			, 18			, 22			, 28
3 10	3, 17		12 10	12, 27		21 10	22, 08		30 10	33, 12		39 10	46, 38	
		, 16			, 16			, 19			, 21			, 29
3 20	3, 33		12 20	12, 43		21 20	22, 27		30 20	33, 33		39 20	46, 67	
		, 17			, 17			, 18			, 22			, 28
3 30	3, 50		12 30	12, 60		21 30	22, 45		30 30	33, 55		39 30	46, 95	
		, 17			, 17			, 18			, 22			, 28
3 40	3, 67		12 40	12, 77		21 40	22, 63		30 40	33, 77		39 40	47, 23	
		, 16			, 16			, 19			, 21			, 29
3 50	3, 83		12 50	12, 93		21 50	22, 82		30 50	33, 98		39 50	47, 52	
		, 17			, 17			, 18			, 22			, 28
4 0	4, 00		13 00	13, 10		22 00	23, 00		31 00	34, 20		40 00	47, 80	
		, 17			, 18			, 20			, 23			, 28
4 10	4, 17		13 10	13, 28		22 10	23, 20		31 10	34, 43		40 10	48, 08	
		, 16			, 19			, 20			, 24			, 29
4 20	4, 33		13 20	13, 47		22 20	23, 40		31 20	34, 67		40 20	48, 37	
		, 17			, 18			, 20			, 23			, 28
4 30	4, 50		13 30	13, 65		22 30	23, 60		31 30	34, 90		40 30	48, 65	
		, 17			, 18			, 20			, 23			, 28
4 40	4, 67		13 40	13, 83		22 40	23, 80		31 40	35, 13		40 40	48, 93	
		, 16			, 19			, 20			, 24			, 29
4 50	4, 83		13 50	14, 02		22 50	24, 00		31 50	35, 37		40 50	49, 22	
		, 17			, 18			, 20			, 23			, 28
5 0	5, 00		14 00	14, 20		23 00	24, 20		32 00	35, 60		41 00	49, 50	
		, 17			, 18			, 20			, 23			, 30
5 10	5, 17		14 10	14, 38		23 10	24, 40		32 10	35, 83		41 10	49, 80	
		, 16			, 19			, 20			, 24			, 30
5 20	5, 33		14 20	14, 57		23 20	24, 60		32 20	36, 07		41 20	50, 10	
		, 17			, 18			, 20			, 23			, 30
5 30	5, 50		14 30	14, 75		23 30	24, 80		32 30	36, 30		41 30	50, 40	
		, 17			, 18			, 20			, 23			, 30
5 40	5, 67		14 40	14, 93		23 40	25, 00		32 40	36, 53		41 40	50, 70	
		, 16			, 19			, 20			, 24			, 30
5 50	5, 83		14 50	15, 12		23 50	25, 20		32 50	36, 77		41 50	51, 00	
		, 17			, 18			, 20			, 23			, 30
6 0	6, 00		15 00	15, 30		24 00	25, 40		33 00	37, 00		42 00	51, 30	
		, 17			, 17			, 20			, 23			, 30
6 10	6, 17		15 10	15, 47		24 10	25, 60		33 10	37, 23		42 10	51, 60	
		, 16			, 16			, 20			, 24			, 30
6 20	6, 33		15 20	15, 63		24 20	25, 80		33 20	37, 47		42 20	51, 90	
		, 17			, 17			, 20			, 23			, 30
6 30	6, 50		15 30	15, 80		24 30	26, 00		33 30	37, 70		42 30	52, 20	
		, 17			, 17			, 20			, 23			, 30
6 40	6, 67		15 40	15, 97		24 40	26, 20		33 40	37, 93		42 40	52, 50	
		, 16			, 16			, 20			, 23			, 30
6 50	6, 83		15 50	16, 13		24 50	26, 40		33 50	38, 16		42 50	52, 80	
		, 17			, 17			, 20			, 24			, 30
7 0	7, 00		16 00	16, 30		25 00	26, 60		34 00	38, 40		43 00	53, 10	
		, 17			, 18			, 20			, 25			, 32
7 10	7, 17		16 10	16, 48		25 10	26, 80		34 10	38, 65		43 10	53, 42	
		, 16			, 19			, 20			, 25			, 31
7 20	7, 33		16 20	16, 67		25 20	27, 00		34 20	38, 90		43 20	53, 73	
		, 17			, 18			, 20			, 25			, 32
7 30	7, 50		16 30	16, 85		25 30	27, 20		34 30	39, 15		43 30	54, 05	
		, 17			, 18			, 20			, 25			, 32
7 40	7, 67		16 40	17, 03		25 40	27, 40		34 40	39, 40		43 40	54, 37	
		, 16			, 19			, 20			, 25			, 31
7 50	7, 83		16 50	17, 22		25 50	27, 60		34 50	39, 65		43 50	54, 68	
		, 17			, 18			, 20			, 25			, 32
8 0	8, 00		17 00	17, 40		26 00	27, 80		35 00	39, 90		44 00	55, 00	
		, 17			, 18			, 20			, 25			, 32
8 10	8, 17		17 10	17, 58		26 10	28, 00		35 10	40, 15		44 10	55, 32	
		, 16			, 19			, 20			, 25			, 31
8 20	8, 33		17 20	17, 77		26 20	28, 20		35 20	40, 40		44 20	55, 63	
		, 17			, 18			, 20			, 25			, 32
8 30	8, 50		17 30	17, 95		26 30	28, 40		35 30	40, 65		44 30	55, 95	
		, 17			, 18			, 20			, 25			, 32
8 40	8, 67		17 40	18, 13		26 40	28, 60		35 40	40, 90		44 40	56, 27	
		, 16			, 19			, 20			, 25			, 31
8 50	8, 83		17 50	18, 32		26 50	28, 80		35 50	41, 15		44 50	56, 58	
		, 17			, 18			, 20			, 25			, 32

TABLE LVII. or TABLE XXII. enlarged. *(Concluded.)*

A TABLE of mean Refractions to every Ten Minutes of Zenith Distances.

App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.
° ′	′ ″	″	° ′	′ ″	″	° ′	′ ″	″	° ′	′ ″	″	° ′	′ ″	″
45 00	0 56, 90		53 30	1 16, 84		62 00	1 46, 80		70 30	2 39, 80		79 00	4 46, 85	
		,33			,47			0, 76			1, 48			4, 33
45 10	0 57, 23		53 40	1 17, 36		62 10	1 47, 56		70 40	2 41, 28		79 10	4 51, 18	
		,33			,47			0, 77			1, 50			4, 45
45 20	0 57, 56		53 50	1 17, 83		62 20	1 48, 33		70 50	2 42, 78		79 20	4 55, 63	
		,33			,47			0, 78			1, 52			4, 58
45 30	0 57, 89		54 00	1 18, 30		62 30	1 49, 11		71 00	2 44, 30		79 30	5 0, 21	
		,33			,47			0, 79			1, 53			4, 72
45 40	0 58, 22		54 10	1 18, 77		62 40	1 49, 90		71 10	2 45, 83		79 40	5 4, 93	
		,34			,48			0, 80			1, 56			4, 88
45 50	0 58, 56		54 20	1 19, 25		62 50	1 50, 70		71 20	2 47, 39		79 50	5 9, 81	
		,34			,48			0, 80			1, 58			5, 02
46 00	0 58, 90		54 30	1 19, 73		63 00	1 51, 50		71 30	2 48, 97		80 00	5 14, 83	
		,35			,49			0, 80			1, 62			5, 16
46 10	0 59, 25		54 40	1 20, 22		63 10	1 52, 30		71 40	2 50, 59		80 10	5 19, 99	
		,34			,49			0, 80			1, 64			5, 32
46 20	0 59, 59		54 50	1 20, 71		63 20	1 53, 10		71 50	2 52, 23		80 20	5 25, 31	
		,35			,49			0, 81			1, 67			5, 50
46 30	0 59, 94		55 00	1 21, 20		63 30	1 53, 91		72 00	2 53, 90		80 30	5 30, 81	
		,35			,51			0, 82			1, 72			5, 68
46 40	1 0, 29		55 10	1 21, 71		63 40	1 54, 73		72 10	2 55, 62		80 40	5 36, 49	
		,36			,51			0, 83			1, 75			5, 89
46 50	1 0, 65		55 20	1 22, 22		63 50	1 55, 56		72 20	2 57, 37		80 50	5 42, 38	
		,35			,51			0, 84			1, 78			6, 07
47 00	1 1, 00		55 30	1 22, 73		64 00	1 56, 40		72 30	2 59, 15		81 00	5 48, 45	
		,36			,52			0, 85			1, 82			6, 25
47 10	1 1, 36		55 40	1 23 25		64 10	1 57, 25		72 40	3 0, 97		81 10	5 54, 70	
		,37			,52			0, 87			1, 85			6, 47
47 20	1 1, 73		55 50	1 23 77		64 20	1 58, 12		72 50	3 2, 82		81 20	6 1, 17	
		,36			,53			0, 88			1, 88			6, 71
47 30	1 2, 09		56 00	1 24, 30		64 30	1 59, 00		73 00	3 4, 70		81 30	6 7, 88	
		,37			,52			0, 89			1, 91			6, 95
47 40	1 2, 46		56 10	1 24, 82		64 40	1 59, 89		73 10	3 6, 61		81 40	6 14, 83	
		,37			,52			0, 90			1, 94			7, 22
47 50	1 2, 83		56 20	1 25, 34		64 50	2 0, 79		73 20	3 8, 55		81 50	6 22, 05	
		,37			,53			0, 91			1, 98			7, 50
48 00	1 3, 20		56 30	1 25, 87		65 00	2 1, 70		73 30	3 10, 53		82 00	6 29, 55	
		,36			,54			0, 92			2, 02			7, 72
48 10	1 3, 56		56 40	1 26, 41		65 10	2 2, 62		73 40	3 12, 55		82 10	6 37, 27	
		,36			,54			0, 93			2, 06			8, 02
48 20	1 3, 92		56 50	1 26, 95		65 20	2 3, 55		73 50	3 14, 61		82 20	6 45, 29	
		,37			,55			0, 94			2, 09			8, 35
48 30	1 4, 29		57 00	1 27, 50		65 30	2 4, 49		74 00	3 16, 70		82 30	6 53, 64	
		,37			,57			0, 96			2, 13			8, 69
48 40	1 4, 66		57 10	1 28, 07		65 40	2 5, 45		74 10	3 18, 83		82 40	7 2, 33	
		,37			,57			0, 97			2, 18			9, 06
48 50	1 5, 03		57 20	1 28, 64		65 50	2 6, 42		74 20	3 21, 01		82 50	7 11, 39	
		,37			,58			0, 98			2, 23			9, 45
49 00	1 5, 40		57 30	1 29, 22		66 00	2 7, 40		74 30	3 23, 24		83 00	7 20, 84	
		,39			,59			1, 00			2, 27			9, 74
49 10	1 5, 79		57 40	1 29, 81		66 10	2 8, 40		74 40	3 25, 51		83 10	7 30, 58	
		,40			,59			1, 01			2, 32			10, 17
49 20	1 6, 19		57 50	1 30, 40		66 20	2 9, 41		74 50	3 27, 83		83 20	7 40, 75	
		,40			,60			1, 03			2, 37			10, 64
49 30	1 6, 59		58 00	1 31, 00		66 30	2 10, 44		75 00	3 30, 20		83 30	7 51, 39	
		,40			,59			1, 04			2, 41			11, 12
49 40	1 6, 99		58 10	1 31, 59		66 40	2 11, 48		75 10	3 32, 61		83 40	8 2, 51	
		,40			,59			1, 05			2, 47			11, 67
49 50	1 7, 39		58 20	1 32, 18		66 50	2 12, 53		75 20	3 35, 08		83 50	8 14, 18	
		,41			,60			1, 07			2, 52			12, 23
50 00	1 7, 80		58 30	1 32, 78		67 00	2 13, 60		75 30	3 37, 60		84 00	8 26, 41	
		,39			,60			1, 08			2, 58			12, 60
50 10	1 8, 19		58 40	1 33, 38		67 10	2 14, 68		75 40	3 40, 18		84 10	8 39, 01	
		,40			,61			1, 10			2, 63			13, 24
50 20	1 8, 59		58 50	1 33, 99		67 20	2 15, 78		75 50	3 42, 81		84 20	8 52, 25	
		,40			,61			1, 11			2, 69			13, 94
50 30	1 8, 99		59 00	1 34, 60		67 30	2 16, 89		76 00	3 45, 50		84 30	9 6, 19	
		,40			,62			1, 12			2, 75			14, 66
50 40	1 9, 39		59 10	1 35, 22		67 40	2 18, 01		76 10	3 48, 25		84 40	9 20, 85	
		,40			,62			1, 14			2, 81			15, 46
50 50	1 9, 79		59 20	1 35, 84		67 50	2 19, 15		76 20	3 51, 06		84 50	9 36, 31	
		,41			,63			1, 15			2, 88			16, 19
51 00	1 10, 20		59 30	1 36, 47		68 00	2 20, 30		76 30	3 53, 94		85 00	9 52, 50	
		,42			,64			1, 16			2, 95			
51 10	1 10, 62		59 40	1 37, 11		68 10	2 21, 46		76 40	3 56, 89				
		,43			,64			1, 17			3, 02			
51 20	1 11, 05		59 50	1 37, 75		68 20	2 22, 63		76 50	3 59, 91				
		,43			,65			1, 19			3, 09			
51 30	1 11, 48		60 00	1 38, 40		68 30	2 23, 82		77 00	4 3, 00				
		,44			,67			1, 21			3, 15			
51 40	1 11, 92		60 10	1 39, 07		68 40	2 25, 03		77 10	4 6, 15				
		,44			,67			1, 22			3, 25			
51 50	1 12, 36		60 20	1 39, 74		68 50	2 26, 25		77 20	4 9, 40				
		,44			,68			1, 25			3, 31			
52 00	1 12, 80		60 30	1 40, 42		69 00	2 27, 50		77 30	4 12, 71				
		,44			,69			1, 28			3, 42			
52 10	1 13, 24		60 40	1 41, 11		69 10	2 28, 78		77 40	4 16, 13				
		,45			,69			1, 30			3, 49			
52 20	1 13, 69		60 50	1 41, 80		69 20	2 30, 08		77 50	4 19, 62				
		,45			,70			1, 32			3, 56			
52 30	1 14, 14		61 00	1 42, 50		69 30	2 31, 40		78 00	4 23, 18				
		,45			,70			1, 34			3, 69			
52 40	1 14, 59		61 10	1 43, 20		69 40	2 32, 74		78 10	4 26, 87				
		,45			,70			1, 37			3, 79			
52 50	1 15, 04		61 20	1 43, 90		69 50	2 34, 11		78 20	4 30, 66				
		,46			,71			1, 39			3, 88			
53 00	1 15, 50		61 30	1 44, 61		70 00	2 35, 50		78 30	4 34, 54				
		,46			,72			1, 41			3, 99			
53 10	1 15, 96		61 40	1 45, 33		70 10	2 36, 91		78 40	4 38, 53				
		,46			,73			1, 43			4, 11			
53 20	1 16, 42		61 50	1 46, 06		70 20	2 38, 34		78 50	4 42, 64				
		,47			,74			1, 46			4, 21			

TABLE LVIII. or TABLE XXVII. enlarged.

Deviation of Stars in North Polar Distance. Common to all the Stars.

LONG. OF ☽ ☊	Right Ascension of the Star.																		
	O. VI.						I. VII.						II. VIII.						III. IX.
	0°	5°	10°	15°	20°	25°	0°	5°	10°	15°	20°	25°	0°	5°	10°	15°	20°	25°	0°
S.	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″
	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
O. V. 0	0, 00	0, 83	1, 66	2, 47	3, 27	4, 04	4, 78	5, 48	6, 14	6, 75	7, 32	7, 83	8, 27	8, 65	8, 98	9, 23	9, 41	9, 52	9, 55
5	0, 62	0, 21	1, 04	1, 86	2, 67	3, 46	4, 22	4, 95	5, 64	6, 29	6, 89	7, 44	7, 93	8, 36	8, 73	9, 03	9, 26	9, 43	9, 52
		+																	
10	1, 23	0, 41	0, 42	1, 24	2, 06	2, 86	3, 63	4, 38	5, 10	5, 78	6, 41	6, 99	7, 53	8, 00	8, 42	8, 76	9, 05	9, 26	9, 41
			+																
15	1, 84	1, 03	0, 21	0, 61	1, 43	2, 23	3, 02	3, 78	4, 52	5, 22	5, 88	6, 50	7, 07	7, 58	8, 04	8, 44	8, 76	9, 03	9, 23
				+															
20	2, 43	1, 64	0, 84	0, 03	0, 78	1, 59	2, 38	3, 16	3, 90	4, 63	5, 31	5, 96	6, 56	7, 11	7, 60	8, 04	8, 42	8, 73	8, 98
25	3, 01	2, 24	1, 46	0, 66	0, 13	0, 93	1, 73	2, 50	3, 26	4, 00	4, 70	5, 37	5, 99	6, 58	7, 11	7, 58	8, 00	8, 30	8, 65
					+														
I. VII. 0	3, 56	2, 82	2, 07	1, 29	0, 51	0, 27	1, 05	1, 83	2, 59	3, 33	4, 05	4, 74	5, 39	5, 99	6, 56	7, 07	7, 53	7, 93	8, 27
						+													
5	4, 08	3, 38	2, 66	1, 92	1, 16	0, 39	0, 38	1, 15	1, 90	2, 65	3, 37	4, 07	4, 74	5, 37	5, 96	6, 50	7, 00	7, 44	7, 83
							+												
10	4, 57	3, 92	3, 23	2, 52	1, 79	1, 05	0, 30	0, 45	1, 20	1, 94	2, 67	3, 37	4, 05	4, 70	5, 31	5, 88	6, 41	6, 89	7, 32
								+											
15	5, 03	4, 42	3, 78	3, 11	2, 42	1, 70	0, 98	0, 25	0, 49	1, 22	1, 94	2, 65	3, 33	4, 00	4, 63	5, 22	5, 78	6, 29	6, 75
									+										
20	5, 45	4, 89	4, 30	3, 67	3, 02	2, 34	1, 65	0, 94	0, 23	0, 49	1, 20	1, 90	2, 59	3, 26	3, 90	4, 52	5, 10	5, 64	6, 14
										+									
25	5, 83	5, 33	4, 79	4, 21	3, 60	2, 97	2, 31	1, 63	0, 94	0, 25	0, 45	1, 15	1, 83	2, 50	3, 16	3, 78	4, 38	4, 95	5, 48
											+								
II. VIII. 0	6, 16	5, 72	5, 24	4, 71	4, 16	3, 57	2, 98	2, 31	1, 65	0, 98	0, 30	0, 38	1, 05	1, 73	2, 38	3, 02	3, 63	4, 22	4, 78
												+							
5	6, 44	6, 07	5, 65	5, 18	4, 68	4, 14	3, 57	2, 97	2, 34	1, 70	1, 05	0, 39	0, 27	0, 93	1, 59	2, 23	2, 87	3, 46	4, 04
													+						
10	6, 68	6, 37	6, 02	5, 61	5, 16	4, 68	4, 16	3, 60	3, 02	2, 42	1, 79	1, 16	0, 51	0, 13	0, 78	1, 43	2, 06	2, 67	3, 27
														+	+				
15	6, 87	6, 63	6, 34	6, 00	5, 61	5, 18	4, 71	4, 21	3, 67	3, 11	2, 52	1, 92	1, 29	0, 66	0, 03	0, 61	1, 24	1, 86	2, 47
																+			
20	7, 01	6, 83	6, 61	6, 34	6, 02	5, 65	5, 24	4, 79	4, 30	3, 78	3, 23	2, 66	2, 07	1, 46	0, 84	0, 21	0, 42	1, 04	1, 66
																	+		
25	7, 09	6, 99	6, 83	6, 63	6, 37	6, 07	5, 72	5, 33	4, 89	4, 42	3, 92	3, 38	2, 82	2, 24	1, 64	1, 03	0, 41	0, 21	0, 83
																		+	
III. IX. 0	7, 11	7, 09	7, 01	6, 87	6, 68	6, 44	6, 16	5, 83	5, 45	5, 03	4, 57	4, 08	3, 56	3, 01	2, 43	1, 84	1, 23	0, 62	0, 00
																			+
5	7, 09	7, 13	7, 12	7, 06	6, 94	6, 78	6, 55	6, 28	5, 96	5, 60	5, 19	4, 75	4, 26	3, 75	3, 21	2, 64	2, 05	1, 45	0, 83
10	7, 01	7, 12	7, 19	7, 20	7, 15	7, 05	6, 90	6, 69	6, 43	6, 13	5, 77	5, 38	4, 94	4, 46	3, 9[illegible]	3, 42	2, 85	2, 26	1, 66
15	6, 87	7, 06	7, 20	7, 28	7, 30	7, 27	7, 19	7, 05	6, 85	6, 61	6, 31	5, 97	5, 58	5, 14	4, 67	4, 17	3, 63	3, 06	2, 47
20	6, 68	6, 94	7, 15	7, 30	7, 40	7, 44	7, 42	7, 35	7, 22	7, 04	6, 80	6, 51	6, 17	5, 79	5, 36	4, 89	4, 38	3, 84	3, 27
25	6, 44	6, 78	7, 05	7, 27	7, 44	7, 55	7, 60	7, 60	7, 53	7, 42	7, 23	7, 00	6, 72	0, 38	6, 00	5, 57	5, 09	4, 58	4, 04
IV. X. 0	6, 16	6, 55	6, 90	7, 19	7, 42	7, 60	7, 72	7, 79	7, 79	7, 73	7, 62	7, 44	7, 22	6, 93	6, 59	6, 21	5, 77	5, 29	4, 78
5	5, 83	6, 28	6, 69	7, 05	7, 35	7, 60	7, 79	7, 92	7, 99	7, 99	7, 94	7, 83	7, 66	7, 43	7, 14	6, 80	6, 41	5, 97	5, 48
10	5, 45	5, 96	6, 43	6, 85	7, 22	7, 53	7, 79	7, 99	8, 12	8, 20	8, 21	8, 15	8, 04	7, 86	7, 64	7, 34	6, 99	6, 59	6, 14
15	5, 03	5, 60	6, 13	6, 61	7, 03	7, 41	7, 73	7, 99	8, 20	8, 33	8, 41	8, 42	8, 36	8, 25	8, 06	7, 83	7, 52	7, 17	6, 75
20	4, 57	5, 19	5, 77	6, 31	6, 80	7, 23	7, 62	7, 94	8, 21	8, 41	8, 54	8, 62	8, 62	8, 56	8, 44	8, 25	8, 00	7, 69	7, 32
25	4, 08	4, 75	5, 38	5, 97	6, 51	7, 00	7, 44	7, 83	8, 15	8, 42	8, 62	8, 75	8, 82	8, 82	8, 75	8, 61	8, 41	8, 15	7, 83
V. XI. 0	3, 56	4, 26	4, 94	5, 58	6, 17	6, 72	7, 22	7, 66	8, 04	8, 36	8, 62	8, 82	8, 94	9, 00	8, 99	8, 91	8, 76	8, 55	8, 27
5	3, 01	3, 75	4, 46	5, 14	5, 79	6, 38	6, 93	7, 43	7, 86	8, 25	8, 56	8, 82	9, 00	9, 12	9, 16	9, 14	9, 05	8, 89	8, 65
10	2, 43	3, 21	3, 95	4, 67	5, 36	6, 00	6, 59	7, 14	7, 63	8, 06	8, 44	8, 75	8, 99	9, 16	9, 27	9, 30	9, 26	9, 15	8, 98
15	1, 84	2, 64	3, 42	4, 17	4, 89	5, 57	6, 21	6, 80	7, 34	7, 82	8, 25	8, 61	8, 91	9, 14	9, 30	9, 39	9, 41	9, 35	9, 23
20	1, 23	2, 05	2, 85	3, 63	4, 38	5, 09	5, 77	6, 41	6, 99	7, 52	8, 00	8, 41	8, 76	9, 05	9, 26	9, 41	9, 48	9, 48	9, 41
25	0, 62	1, 45	2, 26	3, 06	3, 84	4, 58	5, 29	5, 97	6, 59	7, 17	7, 69	8, 15	8, 55	8, 89	9, 15	9, 35	9, 48	9, 53	9, 52
VI. O. 0	0, 00	0, 83	1, 66	2, 47	3, 27	4, 04	4, 78	5, 48	6, 14	6, 75	7, 32	7, 83	8, 27	8, 65	8, 98	9, 23	9, 41	9, 52	9, 55

If the Long. of the ☾ ☊ and AR of the Star are both more or both less than 6ˢ, use the Algebraic Sign of the Table; but if one is more and the other less than 6ˢ, change the Sign of the Table.

The deviation in right Ascension also may be readily found by the help of this Table. Add 3 Signs to the Star's right Ascension, if its Declination be North; or subtract 3 Signs from its right Ascension, if its Declination be South; and with this as a new right Ascension take out the Equation from the area of this Table, and multiply it by the Tangent of the Declination; and if the Star's right Ascension thus corrected by 3 Signs, and the Longitude of the Moon's node, are both more, or both less, than 6 Signs, use the algebraic Sign of the Table; but if one is more, and the other less than 6 Signs, change the Sign of the Table.

TABLE LVIII. or TABLE XXVII. enlarged. *(Concluded.)*

Deviation of Stars in North Polar Diſtance. Common to all the Stars.

LONG. of ☽ ☌ ☍	Right Aſcenſion of the Star. III. IX. 0°	5°	10°	15°	20°	25°	IV. X. 0°	5°	10°	15°	20°	25°	V. XI. 0°	5°	10°	15°	20°	25°	VI. O. 0°
S °	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
O. VI. 0	9, 55	9, 52	9, 41	9, 23	8, 98	8, 65	8, 27	7, 83	7, 32	6, 75	6, 14	5, 48	4, 78	4, 04	3, 27	2, 47	1, 66	0, 83	0, 00
5	9, 52	9, 53	9, 48	9, 35	9, 15	8, 89	8, 55	8, 15	7, 69	7, 17	6, 59	5, 97	5, 29	4, 58	3, 84	3, 06	2, 26	1, 45	0, 62
10	9, 41	9, 48	9, 48	9, 41	9, 26	9, 05	8, 76	8, 41	8, 00	7, 52	6, 99	6, 41	5, 77	5, 09	4, 38	3, 63	2, 85	2, 05	1, 23
15	9, 23	9, 35	9, 41	9, 39	9, 30	9, 14	8, 91	8, 61	8, 25	7, 82	7, 34	6, 80	6, 21	5, 57	4, 89	4, 17	3, 42	2, 64	1, 84
20	8, 98	9, 15	9, 26	9, 30	9, 27	9, 16	8, 99	8, 75	8, 44	8, 06	7, 63	7, 14	6, 59	6, 00	5, 36	4, 67	3, 95	3, 21	2, 43
25	8, 65	8, 89	9, 05	9, 14	9, 16	9, 12	9, 00	8, 82	8, 56	8, 25	7, 86	7, 43	6, 93	6, 38	5, 79	5, 14	4, 46	3, 75	3, 01
I. VII. 0	8, 27	8, 55	8, 76	8, 91	8, 99	9, 00	8, 94	8, 82	8, 62	8, 36	8, 04	7, 66	7, 22	6, 72	6, 17	5, 58	4, 94	4, 26	3, 56
5	7, 83	8, 15	8, 41	8, 61	8, 75	8, 82	8, 82	8, 75	8, 62	8, 42	8, 15	7, 83	7, 44	7, 00	6, 51	5, 97	5, 38	4, 75	4, 08
10	7, 32	7, 69	8, 00	8, 25	8, 44	8, 56	8, 62	8, 62	8, 54	8, 41	8, 21	7, 94	7, 62	7, 23	6, 80	6, 31	5, 77	5, 19	4, 57
15	6, 75	7, 17	7, 52	7, 83	8, 06	8, 25	8, 36	8, 42	8, 41	8, 33	8, 20	7, 99	7, 73	7, 41	7, 03	6, 61	6, 13	5, 60	5, 03
20	6, 14	6, 59	6, 99	7, 34	7, 64	7, 86	8, 04	8, 15	8, 21	8, 20	8, 12	7, 99	7, 79	7, 53	7, 22	6, 85	6, 43	5, 96	5, 45
25	5, 48	5, 97	6, 41	6, 80	7, 14	7, 43	7, 66	7, 83	7, 94	7, 99	7, 99	7, 92	7, 79	7, 60	7, 35	7, 05	6, 69	6, 28	5, 83
II. VIII. 0	4, 78	5, 29	5, 77	6, 21	6, 59	6, 93	7, 22	7, 44	7, 62	7, 73	7, 79	7, 79	7, 72	7, 60	7, 42	7, 19	6, 90	6, 55	6, 16
5	4, 04	4, 58	5, 09	5, 57	6, 00	6, 38	6, 72	7, 00	7, 23	7, 42	7, 53	7, 60	7, 60	7, 55	7, 44	7, 27	7, 05	6, 78	6, 44
10	3, 27	3, 84	4, 38	4, 89	5, 36	5, 79	6, 17	6, 51	6, 80	7, 04	7, 22	7, 35	7, 42	7, 44	7, 40	7, 30	7, 15	6, 94	6, 68
15	2, 47	3, 06	3, 63	4, 17	4, 67	5, 14	5, 58	5, 97	6, 31	6, 61	6, 85	7, 05	7, 19	7, 27	7, 30	7, 28	7, 20	7, 06	6, 87
20	1, 66	2, 26	2, 85	3, 42	3, 95	4, 46	4, 94	5, 38	5, 77	6, 13	6, 43	6, 69	6, 90	7, 05	7, 15	7, 20	7, 19	7, 12	7, 01
25	0, 83	1, 45	2, 05	2, 64	3, 21	3, 75	4, 26	4, 75	5, 19	5, 60	5, 96	6, 28	6, 55	6, 78	6, 94	7, 06	7, 12	7, 13	7, 09
III. IX. 0	0, 00	0, 62	1, 23	1, 84	2, 43	3, 01	3, 56	4, 08	4, 57	5, 03	5, 45	5, 83	6, 16	6, 44	6, 68	6, 87	7, 01	7, 09	7, 11
5	+ 0, 83	+ 0, 21	0, 41	1, 03	1, 64	2, 24	2, 82	3, 38	3, 92	4, 42	4, 89	5, 33	5, 72	6, 07	6, 37	6, 63	6, 83	6, 99	7, 09
10	1, 66	1, 04	+ 0, 42	0, 21	0, 84	1, 46	2, 07	2, 66	3, 23	3, 78	4, 30	4, 79	5, 24	5, 65	6, 02	6, 34	6, 61	6, 83	7, 01
15	2, 47	1, 86	1, 24	+ 0, 61	0, 03	0, 66	1, 29	1, 92	2, 52	3, 11	3, 67	4, 21	4, 71	5, 18	5, 61	6, 00	6, 34	6, 63	6, 87
20	3, 27	2, 67	2, 06	1, 43	+ 0, 78	+ 0, 13	0, 51	1, 16	1, 79	2, 42	3, 02	3, 60	4, 16	4, 68	5, 16	5, 61	6, 02	6, 37	6, 68
25	4, 04	3, 46	2, 87	2, 23	1, 59	0, 93	+ 0, 27	0, 39	1, 05	1, 70	2, 34	2, 97	3, 57	4, 14	4, 68	5, 18	5, 65	6, 07	6, 44
IV. X. 0	4, 78	4, 22	3, 63	3, 02	2, 38	1, 73	1, 05	+ 0, 38	+ 0, 30	+ 0, 98	1, 65	2, 31	2, 98	3, 57	4, 16	4, 71	5, 24	5, 72	6, 16
5	5, 48	4, 95	4, 38	3, 78	3, 16	2, 50	1, 83	1, 15	+ 0, 45	+ 0, 25	0, 94	1, 63	2, 31	2, 97	3, 60	4, 21	4, 79	5, 33	5, 83
10	6, 14	5, 64	5, 10	4, 52	3, 90	3, 26	2, 59	1, 90	1, 20	+ 0, 49	+ 0, 23	0, 94	1, 65	2, 34	3, 02	3, 67	4, 30	4, 89	5, 45
15	6, 75	6, 29	5, 78	5, 22	4, 63	4, 00	3, 33	2, 65	1, 94	1, 22	+ 0, 49	+ 0, 25	+ 0, 98	1, 70	2, 42	3, 11	3, 78	4, 42	5, 03
20	7, 32	6, 89	6, 41	5, 88	5, 31	4, 70	4, 05	3, 37	2, 67	1, 94	1, 20	+ 0, 45	+ 0, 30	1, 05	1, 79	2, 52	3, 23	3, 92	4, 57
25	7, 83	7, 44	7, 00	6, 50	5, 96	5, 37	4, 74	4, 07	3, 37	2, 65	1, 90	1, 15	+ 0, 38	+ 0, 39	1, 16	1, 92	2, 66	3, 38	4, 08
V. XI. 0	8, 27	7, 93	7, 53	7, 07	6, 56	5, 99	5, 39	4, 74	4, 05	3, 33	2, 59	1, 83	1, 05	+ 0, 27	+ 0, 51	1, 29	2, 07	2, 82	3, 56
5	8, 65	8, 36	8, 00	7, 58	7, 11	6, 58	5, 99	5, 37	4, 70	4, 00	3, 26	2, 50	1, 73	0, 93	+ 0, 13	0, 66	1, 46	2, 24	3, 01
10	8, 98	8, 73	8, 42	8, 04	7, 60	7, 11	6, 56	5, 96	5, 31	4, 63	3, 90	3, 16	2, 38	1, 59	0, 78	0, 03	6, 84	1, 64	2, 43
15	9, 23	9, 03	8, 76	8, 44	8, 04	7, 58	7, 07	6, 50	5, 88	5, 22	4, 52	3, 78	3, 02	2, 23	1, 43	+ 0, 61	0, 21	1, 03	1, 84
20	9, 41	9, 26	9, 05	8, 76	8, 42	8, 00	7, 53	6, 99	6, 41	5, 78	5, 10	4, 38	3, 63	2, 86	2, 06	1, 24	+ 0, 42	0, 41	1, 23
25	9, 52	9, 43	9, 26	9, 03	8, 73	8, 36	7, 93	7, 44	6, 89	6, 29	5, 64	4, 95	4, 22	3, 46	2, 67	1, 86	1, 04	+ 0, 21	0, 62
VI. O. 0	9, 55	9, 52	9, 41	9, 23	8, 98	8, 65	8, 27	7, 83	7, 32	6, 75	6, 14	5, 48	4, 78	4, 04	3, 27	2, 47	1, 66	0, 33	0, 00

If the Long. of the ☾ ☌ and AR of the Star are both more or both leſs than 6ˢ, uſe the Algebraic Sign of the Table; but if one is more and the other leſs than 6ˢ, change the Sign of the Table.

The deviation in right Aſcenſion alſo may be readily found by the help of this Table. Add 3 Signs to the Star's right Aſcenſion, if its Declination be North; or ſubtract 3 Signs from its right Aſcenſion, if its Declination be South; and with this as a new right Aſcenſion take out the Equation from the area of this Table, and multiply it by the Tangent of the Declination; and if the Star's right Aſcenſion thus corrected by 3 Signs, and the Longitude of the Moon's node, are both more, or both leſs, than 6 Signs, uſe the algebraic Sign of the Table; but if one is more, and the other leſs than 6 Signs, change the Sign of the Table.

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TABLE LVIII. or TABLE XXVII. enlarged. *(Concluded.)*

Deviation of Stars in North Polar Distance. Common to all the Stars.

LONG. of ☽'s ☊		Right Ascension of the Star. III. IX. 0°	5°	10°	15°	20°	25°	IV. X. 0°	5°	10°	15°	20°	25°	V. XI. 0°	5°	10°	15°	20°	25°	VI. O. 0°
S	°	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
		−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
O. VI.	0	9, 55	9, 52	9, 41	9, 23	8, 98	8, 65	8, 27	7, 83	7, 32	6, 75	6, 14	5, 48	4, 78	4, 04	3, 27	2, 47	1, 66	0, 83	0, 00
	5	9, 52	9, 53	9, 48	9, 35	9, 15	8, 89	8, 55	8, 15	7, 69	7, 17	6, 59	5, 97	5, 29	4, 58	3, 84	3, 06	2, 26	1, 45	0, 62
	10	9, 41	9, 48	9, 48	9, 41	9, 26	9, 05	8, 76	8, 41	8, 00	7, 52	6, 99	6, 41	5, 77	5, 09	4, 38	3, 63	2, 85	2, 05	1, 23
	15	9, 23	9, 35	9, 41	9, 39	9, 30	9, 14	8, 91	8, 61	8, 25	7, 82	7, 34	6, 80	6, 21	5, 57	4, 89	4, 17	3, 42	2, 64	1, 84
	20	8, 98	9, 15	9, 26	9, 30	9, 27	9, 16	8, 99	8, 75	8, 44	8, 06	7, 63	7, 14	6, 59	6, 00	5, 36	4, 67	3, 95	3, 21	2, 43
	25	8, 65	8, 89	9, 05	9, 14	9, 16	9, 12	9, 00	8, 82	8, 56	8, 25	7, 86	7, 43	6, 93	6, 38	5, 79	5, 14	4, 46	3, 75	3, 01
I. VII.	0	8, 27	8, 55	8, 76	8, 91	8, 99	9, 00	8, 94	8, 82	8, 62	8, 36	8, 04	7, 66	7, 22	6, 72	6, 17	5, 58	4, 94	4, 26	3, 56
	5	7, 83	8, 15	8, 41	8, 61	8, 75	8, 82	8, 82	8, 75	8, 62	8, 42	8, 15	7, 83	7, 44	7, 00	6, 51	5, 97	5, 38	4, 75	4, 08
	10	7, 32	7, 69	8, 00	8, 25	8, 44	8, 56	8, 62	8, 62	8, 54	8, 41	8, 21	7, 94	7, 62	7, 23	6, 80	6, 31	5, 77	5, 19	4, 57
	15	6, 75	7, 17	7, 52	7, 83	8, 06	8, 25	8, 36	8, 42	8, 41	8, 33	8, 20	7, 99	7, 73	7, 41	7, 03	6, 61	6, 13	5, 60	5, 03
	20	6, 14	6, 59	6, 99	7, 34	7, 64	7, 86	8, 04	8, 15	8, 21	8, 20	8, 12	7, 99	7, 79	7, 53	7, 22	6, 85	6, 43	5, 96	5, 45
	25	5, 48	5, 97	6, 41	6, 80	7, 14	7, 43	7, 66	7, 83	7, 94	7, 99	7, 99	7, 92	7, 79	7, 60	7, 35	7, 05	6, 69	6, 28	5, 83
II. VIII.	0	4, 78	5, 29	5, 77	6, 21	6, 59	6, 93	7, 22	7, 44	7, 62	7, 73	7, 79	7, 79	7, 72	7, 60	7, 42	7, 19	6, 90	6, 55	6, 16
	5	4, 04	4, 58	5, 09	5, 57	6, 00	6, 38	6, 72	7, 00	7, 23	7, 42	7, 53	7, 60	7, 60	7, 55	7, 44	7, 27	7, 05	6, 78	6, 44
	10	3, 27	3, 84	4, 38	4, 89	5, 36	5, 79	6, 17	6, 51	6, 80	7, 04	7, 22	7, 35	7, 42	7, 44	7, 40	7, 30	7, 15	6, 94	6, 68
	15	2, 47	3, 06	3, 63	4, 17	4, 67	5, 14	5, 58	5, 97	6, 31	6, 61	6, 85	7, 05	7, 19	7, 27	7, 30	7, 28	7, 20	7, 06	6, 87
	20	1, 66	2, 26	2, 85	3, 42	3, 95	4, 46	4, 94	5, 38	5, 77	6, 13	6, 43	6, 69	6, 90	7, 05	7, 15	7, 20	7, 19	7, 12	7, 01
	25	0, 83	1, 45	2, 05	2, 64	3, 21	3, 75	4, 26	4, 75	5, 19	5, 60	5, 96	6, 28	6, 55	6, 78	6, 94	7, 06	7, 12	7, 13	7, 09
III. IX.	0	0, 00	+ 0, 62	+ 1, 23	1, 84	2, 43	3, 01	3, 56	4, 08	4, 57	5, 03	5, 45	5, 83	6, 16	6, 44	6, 68	6, 87	7, 01	7, 09	7, 11
	5	0, 83	0, 21	+ 0, 41	1, 03	1, 64	2, 24	2, 82	3, 38	3, 92	4, 42	4, 89	5, 33	5, 72	6, 07	6, 37	6, 63	6, 83	6, 99	7, 09
	10	1, 66	1, 04	0, 42	+ 0, 21	0, 84	1, 46	2, 07	2, 66	3, 23	3, 78	4, 30	4, 79	5, 24	5, 65	6, 02	6, 34	6, 61	6, 83	7, 01
	15	2, 47	1, 86	1, 24	+ 0, 61	0, 03	0, 66	1, 29	1, 92	2, 52	3, 11	3, 67	4, 21	4, 71	5, 18	5, 61	6, 00	6, 34	6, 63	6, 87
	20	3, 27	2, 67	2, 06	1, 43	+ 0, 78	+ 0, 13	+ 0, 51	1, 16	1, 79	2, 42	3, 02	3, 60	4, 16	4, 68	5, 16	5, 61	6, 02	6, 37	6, 68
	25	4, 04	3, 46	2, 87	2, 23	1, 59	0, 93	+ 0, 27	+ 0, 39	1, 05	1, 70	2, 34	2, 97	3, 57	4, 14	4, 68	5, 18	5, 65	6, 07	6, 44
IV. X.	0	4, 78	4, 22	3, 63	3, 02	2, 38	1, 73	1, 05	+ 0, 38	+ 0, 30	+ 0, 98	1, 65	2, 31	2, 98	3, 57	4, 16	4, 71	5, 24	5, 72	6, 16
	5	5, 48	4, 95	4, 38	3, 78	3, 16	2, 50	1, 83	1, 15	+ 0, 45	+ 0, 25	+ 0, 94	1, 63	2, 31	2, 97	3, 60	4, 21	4, 79	5, 33	5, 83
	10	6, 14	5, 64	5, 10	4, 52	3, 90	3, 26	2, 59	1, 90	1, 20	+ 0, 49	+ 0, 23	+ 0, 94	1, 65	2, 34	3, 02	3, 67	4, 30	4, 89	5, 45
	15	6, 75	6, 29	5, 78	5, 22	4, 63	4, 00	3, 33	2, 65	1, 94	1, 22	+ 0, 49	+ 0, 25	+ 0, 98	1, 70	2, 42	3, 11	3, 78	4, 42	5, 03
	20	7, 32	6, 89	6, 41	5, 88	5, 31	4, 70	4, 05	3, 37	2, 67	1, 94	1, 20	+ 0, 45	+ 0, 30	1, 05	1, 79	2, 52	3, 23	3, 92	4, 57
	25	7, 83	7, 44	7, 00	6, 50	5, 96	5, 37	4, 74	4, 07	3, 37	2, 65	1, 90	1, 15	+ 0, 38	+ 0, 39	1, 16	1, 92	2, 66	3, 38	4, 08
V. XI.	0	8, 27	7, 93	7, 53	7, 07	6, 56	5, 99	5, 39	4, 74	4, 05	3, 33	2, 59	1, 83	1, 05	+ 0, 27	+ 0, 51	1, 29	2, 07	2, 82	3, 56
	5	8, 65	8, 36	8, 00	7, 58	7, 11	6, 58	5, 99	5, 37	4, 70	4, 00	3, 26	2, 50	1, 73	0, 93	+ 0, 13	0, 66	1, 46	2, 24	3, 01
	10	8, 98	8, 73	8, 42	8, 04	7, 60	7, 11	6, 56	5, 96	5, 31	4, 63	3, 90	3, 16	2, 38	1, 59	0, 78	+ 0, 03	6, 84	1, 64	2, 43
	15	9, 23	9, 03	8, 76	8, 44	8, 04	7, 58	7, 07	6, 50	5, 88	5, 22	4, 52	3, 78	3, 02	2, 23	1, 43	+ 0, 61	+ 0, 21	1, 03	1, 84
	20	9, 41	9, 26	9, 05	8, 76	8, 42	8, 00	7, 53	6, 99	6, 41	5, 78	5, 10	4, 38	3, 63	2, 86	2, 06	1, 24	+ 0, 42	+ 0, 41	1, 23
	25	9, 52	9, 43	9, 26	9, 03	8, 73	8, 36	7, 93	7, 44	6, 89	6, 29	5, 64	4, 95	4, 22	3, 46	2, 67	1, 86	1, 04	+ 0, 21	0, 62
VI. O.	0	9, 55	9, 52	9, 41	9, 23	8, 98	8, 65	8, 27	7, 83	7, 32	6, 75	6, 14	5, 48	4, 78	4, 04	3, 27	2, 47	1, 66	0, 33	0, 00

If the Long. of the ☾'s ☊ and AR of the Star are both more or both less than 6ˢ, use the Algebraic Sign of the Table; but if one is more and the other less than 6ˢ, change the Sign of the Table.

The deviation in right Ascension also may be readily found by the help of this Table. Add 3 Signs to the Star's right Ascension, if its Declination be North; or subtract 3 Signs from its right Ascension, if its Declination be South; and with this as a new right Ascension take out the Equation from the area of this Table, and multiply it by the Tangent of the Declination; and if the Star's right Ascension thus corrected by 3 Signs, and the Longitude of the Moon's node, are both more, or both less, than 6 Signs, use the algebraic Sign of the Table; but if one is more, and the other less than 6 Signs, change the Sign of the Table.

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BSB Bayerische StaatsBibliothek
MDZ Münchener DigitalisierungsZentrum Digitale Bibliothek

Maskelyne, Nevil

Tables for Computing the apparent Places of the fitx Stars

London 1774

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